

1955

✓ 1955.1 1.5 ms. N. of Big Cabin, Craig Co.,
Oklahoma. VIII. 4. 1955. Elev. approx. 200 ft.
(R.). Overcast, after rain, everything
wet & some soaked. Roadside made of
tall grass & weeds, some sunflower. Little
mowing.

Syrphula - few adults, juvs. numerous.

Melanophus brittatus - 1 taken - all seen.

Ceanothus sp. 1 swept. - all seen.

Orth. 11 = 11

Other ins. 1.

✓ 1955.2 4.5 ms. S. of Chouteau, Mayes Co.,
Okla. Elev. 530 ft. VIII. 4. 1955: (R.).

Roadside, partly mowed, elsewhere tall
grass, sunflowers, Andropogon, etc. Very wet,
not a problem to handle. Wind high - coming
in from a full storm.

Elapheromera (?) swept - none adult.

Syrphula abundant, partic. juvs. - in thicket com.

Leptodella very few.

Ctenostoma numerous - in thicket com and

Onychia - ^{on ground} - few, active.

Whippis very few, many flying, 1 taken, but 2 seen

✓ 1955. 4 3 mo. N. of Keifton, Muskogee
Co., Okla. Elev. ^{563 ft.} ~~563 ft.~~ VII. 4, 1955: (R.).

In tall weed & grass.

Amphispiza (?) All juvs. ? Numerous,
mpt.

Syrphula adum. mainly juvs. Common.

Agelaius trialis local, in thicket.

Agelaius trialis local, six taken.

Melanophaga tristis a number, 3 taken

" sp. 1 ♀. too in thicket.

Corvus corax local, 1 ♀, some juvs. seen.

Orth. $32 + 90 = 122$.

Orth. vis. $0 + 1 = 1$.

✓ 1955. 5 5 mo. W. of Warner, Muskogee Co.,
Okla. Elev. ^{750 ft.} ~~750 ft.~~ VII. 4, 1955: (R.).

Roadside - weed. grass, ditch & wood edge.

Syrphula largely adults.

Ceryle alcyon very few - 1 taken.

Ceryle alcyon few, very active - 2 taken.

Melanophaga tristis quite few in moister
areas, very few flying & hard to take
as they flew across road full of traffic.

14 Agelaius trialis seen - taken.

Melanophaga tristis numerous, 1 taken.

" diff. a few, 2 taken.

Corvus corax 1 juv. taken.

Sceddaria 1 ♀, swept from tall weeds.

Conosiph. 1 juv. taken.

Uth. $17 + 122 = 139$.

Uth. vis. $0 + 1 = 1$.

✓ 1955.6 6 mos. W of Sallisaw, Sequoyah
Co., Okla. ^{high 500 ft.} ~~Elev.?~~ VIII. 4, 1955. (R.).

Roadside drain - tall weeds.

All ^{species of} C. seen taken except one large Sceddaria
- a number of Mermiria which were too
many.

Siphula numerous, mostly ads.

Acephalella " in short grass

Uth. funus-rubens few - 1 taken.

Conosiph. strictus 1 ♂ taken.

Uth. $13 + 139 = 152$.

Uth. vis. $1 + 1 = 2$

✓ 1955.7 6 mos. S. of Sallisaw, Sequoyah Co.,
Okla. ^{600 ft.} ~~Elev.?~~ VIII. 5, 1955. (R.) ^{high 200-300 ft. higher than Sallisaw.}

On oak covered hills - roadside, with tall
and wet vegetation. All species seen taken
ex. sev. Mermiria.

Diapheromera 1 ad ♂ & num. of juvs. swept.

Paratettix 1 swept from damp ground.

19557 (cont.)

Mercuria 1 juv. Sydula 1 juv.

Hippiscus a few, 2 taken.

Hadrotettix a few seen, one taken on bare area.

Melanoplus sp. 1 ♂.

" spp. no. juv.

Campylacantha a few juvs.

Not. not numerous.

Orth. $17 + 152 = 169$.

Orth. no. $0 + 2 = 2$.

19558 6 mi. due S. of Arkansas River
bridge on U.S. 59, Laplace Co., Okla.

Colo. ^{ca. 450 ft.} VIII. 5. 1955. (R.).

Weedy fields and true sandy areas - full
weed in former. All species seen taken
exc. Chistocerca amer. - Mel. differentialis.

Sydula juvs. only.

Mercuria a fair no. very active - two taken.

Urophyllo seen. on bare or short vegetated
surfaces.

The Hadrotettix specimens 1 of all seen.

Campylacantha 2 ad. + imm. juvs. Taken.

Melanoplus tristatus a few, 1 taken.

" spp. juvs. of a number rept.

Conusph. stratus no. adult taken,
mostly juvs.

Unk. $28 + 169 = 197$.

Other ins. $0 + 2 = 2$

✓ 1955.9 Cavanah R.R. siding, betw. Portau
and Mister, Lepton Co., Okla. Elev. ? V.M.S. 1955.
(R.)

Area of tall weeds of various types,
grasses, mullins, etc.

All C. species seen taken, etc.

Chapheromus numerous, all juvs.

Stagmom. 1 juv. kept.

Synaldis num., ad. - juvs.

Mermiria in fair nos. very active

Cephallota a few.

Aphis a few, one taken.

Hadrotettix 1 taken, all seen.

Campylacantha, all seen juvs.

Neurostethus quirois a pair taken

Melanophus diff. abund. no. taken

" brutt. not quite as num.

" femor-nigrum not num.

Conusph. stratus numerous

Unk. $46 + 197 = 243$.

Other ins. $0 + 2 = 2$

✓
1955.10 3 ms. W. of Wister, Ripplere Co., Okla.
Elev. ^{500 ft.} ~~2.~~ VIII. 5. 1955. (R.).

Open oak and hickory woods.
All species seen taken.

Syrphula less common than usual.

Mercuria numerous.

Cephus numerous

Aphidius, a few

Hippodamia more along roadside than in woods.

Pachytrochus, two seen on dead leaves in woods, 1 lost, 1 taken.

Melanoplus lucidus a fair no., mostly ad.

" tristatus a few.

" sp.? large grayish - 2 ♀ all seen.

" spp. imm. prob. nr. spp.

Utah. $24 + 243 = 267$.

Utah imm. $0 + 2 = 2$.

✓
1955.11 Betw. Red Oak and Hughes, Latimer Co., Okla. Elev. ^{circa 600 ft.} ~~2.~~ VIII. 5. 1955. (R.).

Roadside of heavy oak and hickory woods.

All species seen taken exc. Mel. differentialis.

Microgaster num. anpt, 1 ad ♂ then immat.

Syrphula num. ads. a few.

Mercuria a few.

Aphidius 1 Taken.
Aphidius a number, 2 Taken.
Myrmica ditto - long flying.
Agrotis a number, very active.
Campoplex 1 juv. Taken.
Mel. sp. 1 juv.

With. $28 + 267 = 295$.

Other ins $0 + 2 = 2$.

↓
1955. 12 8 mi. WSW. of Wilburton,
Ratner Co., Okla. Elev. ? Area 700 ft.
VIII. 5. 1955: (R.).

Elevated shoulder of ridge with cut. over
oak, pine & hickory woods. Ground surface
in greater part broken flabby rock,
little low plant cover except oak scrub.
Remains of burns in places.

All species seen Taken.

Syrphid a few.
Mermis ditto.

Aphidius "

Agrotis about the rock surface.

Chortophaga a few.

Aphidius numerous.

Agrotis very numerous, particularly
about the flat rock areas, not as

1955.12 (cont.)

vary as usual.

Coryphæus stratus 1 swept.

Utter. 18 + 295 = 313.

Utter vis. 0 + 2 = 2.

✓ 1955.13 3.2 ms. S. of Savanna, Pittsburg Co.,
Okla. Elev. (approx.) 660 feet. VIII. 6. 1955. (R.)

Roadside swale of tall grass and weeds,
with bare spots of gravel and broken
black top (old road material).

All species seen adult taken exc. 1 ind.

of a th-w. Melanophus, ~~latter~~

Elaphromma abundant, in considerable
part adults, swept.

Syrphula, a few.

Mercuria very common, 4 taken.

Agrostotellix few on ground, 1 taken.

Hesperotellix viridis a single one.

" pratensis, a few, 2 taken.

" speciosa " " , 2 "

Campylacantha juvs. swept.

Melanophus diff. numerous, free flying.

" viridis a number.

" sp.? juv. taken.

Coryphæus stratus, ads. both sexes - juvs.

Orth. $45 + 313 = 358$

Orth. ins. $0 + 2 = 2$

1955.14 Hill Hopes S. of Gap, Atoka Co.,
Oklahoma. Elev. 660 ft. (an.) VIII. 6, 1955. (R.)

Tangle of weeds along edge of oak woods on
in edge of same.

All species seen adult taken exc. Mel.

differentialis. Little variety.

Diapheromera rupt. Juv. also seen.

Syrphula few.

Mermiria, numerous.

Aganotettix a very few. 1 taken

Chortophaga 1 taken, all unrecognized.

Campoplexanthus Juv. only.

Orth. $9 + 358 = 367$.

Orth. ins. $0 + 2 = 2$.

✓ 1955.15 7.5 ms. S.E. of Atoka, Atoka Co.,
Okla. Elev 475 feet (an.) VIII. 6, 1955
(R.)

Roadside - much broken old road timber,
and in open oak & hickory woods with
much grass and oak sprouts.

All species seen adult unbroken.

Melan. diff. exceedingly abundant.

1955. 15 (cont.)

Staphylin. 1 juv. kept.
Neaphtura juv. no adults noticed.

Syrphula, num. adults & juv.

Cerypha in dry area.

Hadrotellix common on the old pavement area.

Schistocerca comm. 1 sp. seen 1 taken.

Mel. diff. on alone.

" short-winged. 2 taken (DT).

" long-winged. 1 ♂ taken.

Hesperotellix speciosa a few, 2 taken.

Campoplexanthus a few juv.

Uth. $24 + 367 = 391$.

Uth. in $3 + 2 = 5$.

1955. 16 5 ms. E. of Ferris, Atoka
Co., Okla. Elev. 520 feet. (Aug.)

[Immured to the W. of the Preshmatula Co., Ariz.]

Aug. 6, 1955. (R)

Oak woods with heavy thin oak ground cover,
and grass patches interspersed. (all short
grass & weeds.)

All Uth. kept. as adults taken.

1 juv. Brumma, curious by in a wood
trail with no meadow-type grass anywhere
near!

Syrphula few.

Spharagnum elli Few in the oak scrub.

" cristatum All seen (1) - on the
dry gravelly road edge.

Mel. short-wing. 1 taken in wood, others
here

Mel. long-winged. In oak scrub.

Altth. $9 + 391 = 400$

Altth. vis. $0 + 5 = 5$.

↓ 1955. 17 1 m. W. of Hugo, Choctaw Co.,
Okla. Elev (an.) 408 ft VIII. 6. 1955.
(R.)

Roadside, very tall ^{wild} ~~males~~ - wild flowers.
Anything recogn. Taken.

Diapheromera imm. only seen.

Lyrtula imm. ad. & imm.

Theridion quite numerous, flying freely and
far, females particularly.

Aphidius a few.

Asperotettix gracilis 1 taken.

Melanoplus diff. numerous.

" funer-nigrum. 1 taken.

Orthocentrus sw. imm.

Altth. $13 + 400 = 413$.

Altth. vis. $0 + 5 = 5$.

✓ 1955 18 5 ms. S. of Powderly, Lamar Co.,
Texas. Elev. (an.) 425 ft. VIII. 6. 1955. (R.)

Tall grass - woods, with some oak scrub under
scattered oaks. All species recognized taken.

1 ad. ♀ Brumia as above.

Chapheromura num. - largely adult.

Syrphula common.

Mercuria num. very active - adult.

Herpistictus pratensis 1 taken.

Melampus bristatus taken.

" Mel. nigra. - only in oak scrub.

Orth. 17 + 413 = 430.

Other ins. 0 + 5 = 5.

✓ 1955 19 Near Petty, Lamar Co., Texas.
Elev. (an.) 600 ft. VIII. 7. 1955 (R.)

Old fields on black prairie soil, grown up
loosely in coarse, tall grass.

Mel. diff. swarming. Not much else.

Chapheromura num. in large part adults.

Syrphula a few.

Mercuria ditto.

Herpistictus spurius, a few. 2 taken.

Mel. bristatus a few.

Orth. 21 + 430 = 451.

Other ins. 0 + 5 = 5.

↓
1955.20 3ms. E. of Borham,
Fannin Co., Texas. Elev. (an.) 575 ft.
VIII. 7, 1955. (R.)

Roadside park with oaks and adjacent
undisturbed prairie corn and some short
grass (mowed).

Stagmomantis juv. nupt.

Blispharmona a few in tall grass

Mermiria in fair nos.

Lyphula " " "

Cryptorhynchus num. in short grass (mowed)

Aphid 1 seen, taken.

Mel. diff. numerous. Neogast. pratensis 1 in
" smaller, long-winged sp. 1 ♀ all seen. Neogast. pratensis 2 in short grass.

Andryconypha appar. 2 species, both in
tall prairie corn, flying freely.

Archimimus 1 ♂ ditto.

Orth. 29 + 451 = 480.

Orth. ins. 1 + 5 = 6.

1955.21 1.5 ms. W. of Belle,
Grayson Co., Texas. Elev. (an.) 650 ft.
VIII. 7, 1955. (R.)

Ung. plant corn, with much tall grass,
many thistles and a tall composite

1955. 21 (cont.)

gone to seed.

Mel. diff. very abundant.

Stagmomantis sw. juv. taken.

Chaptalia very num., almost all ad.

Mermia numerous.

Campylactis 1 juv. taken.

Mel. ^{flavida type} Stictopoda 1 taken.

~~On~~ Conoclinium strictum 1 swept

Orth. $23 + 480 = 503$.

Other ins. $0 + 6 = 6$

1955. 22 2 ms. W. of Whitesboro,
Coke Co., Texas. Elev. (ad.) 830 ft. VIII. 8. 45.
(R.).

In roadside tall grass, with Thunberg
spots.

Mermia, in fair num.

Synchlora abundant.

Agrotis 1 swept.

Teppia 1 swept.

Hippocampus num. in center of spot. Thoroughly
flying, but slow to rise.

Ceanothus sw. swept.

Orth. $15 + 503 = 518$.

Other ins. $0 + 6 = 6$

↓
1955. 23 7.5 ms. S. of Sanger,
Henton Co., Texas. Elev. (am.) 800 ft.
VIII. 7. 1955. (R.).

Small area of original prairie com.
All species recognized - taken exc. M. diff.
Alaphromera very abund.

Lythra num.

Merminia "

Agrostellus num. none on ground surface.

Parasitomyia
~~Parasitomyia~~ 1 ♂ mpt.

Despistellus spec. 1 ♀ mpt.

Hel. th. w. sp. 1 ♀ mpt.

Cremoph. stictus a few.

Orth. $578 + 34 = 552$.

Utter in. $0 + 6 = 6$.

↓
1955. 24 Soap Creek, 6.2 ms. S. of Mansfield,
Johnson Co., Texas. Elev. (am.) 675 ft.
VIII. 8. 1955. (R.).

Roadside area with short grass and
low semi-prostrate minosa-like
patches - border of tall grass.

Alaphromera a few.

Boopeda a very few, both sexes taken.

1955-24 (cont.)

Asphondylia - 1 taken, swept.

Hippisus a few, ads. - juvs. taken.

Encoptolophus locally num. in short
grass area, a few juvs. most adults.

Androtettix 1 taken, all on

Mel. diff. pumila.

Amblycorypha lunata 1 ♀ swept

Orth. $\# 552 + 27 = 579$.

Other ins. $0 + 6 = 6$

1955-25 5-5 ms. S. of Waxahachie,
Ellis Co., Texas. Elev 600 ft. (an.). VIII.8.1955
(R.)

Roadside but disturbed and not native
com. Little except swarms of Mel.
diff.

Stagon. juvs. numerous.

Eudoceryx not quite adult.

Merminia num. - 1 taken.

Agrostis num.

Desmetia opaciosa 1 swept.

Orth. $13 + 579 = 592$.

Other ins. $0 + 6 = 6$

↓ 1955.26. 6 mi. S. of Rice, Navarro Co., Texas. Elev. 500 ft. VIII.8. 1955. (R.)

In range field not heavily grazed.

Pitaneutria 2 juvs. unsp.

Pseudoceryle 1 juv. unsp.

Syrhula num.

Agelaius num.

Chortophaga 1 juv. unsp.

Hesperotettix opacica 10th inst. taken.

Mel. diff. abundant. Paraidemma 2 ♀ taken
" rus. 1 imm. others seen.

Cynoph. strita ad. ♀ taken, unsp.

Pediodetes 4 females in can close to ground - no other actually seen. ¹ unsp.
Uth. 26 + 592 = 618, unsp.
Other ins. 0 + 6 = 6.

↓ 1955.27 2 mi. S. of Richland, Navarro Co., Texas. Elev. 475 ft (av.) VIII.8. 1955. (R.)

In oak woods and adjacent piece of natural prairie.

Mel. diff. common.

Pseudoceryle - Heaphromera unsp
in nat. prairie.

1955.27 / cont. 1.

Stagmom. 1 juv. swept in prairie area.
Syrphula juv. taken, didn't notice any
adults.

Mermis num. in prairie.

Alpeja abundant in prairie area.
Campylotarsus 1 juv. swept in ditto.

Paraidemona 1 ♂ swept

Mel. discolor type. 3 ♂ taken in oak woods under - not in
woods ground cover - other seen, but
not num. many taken.

Uth. $35 + 618 = 653$.

Uth. in. $0 + 6 = 6$.

✓ 1955.28 6.5 mi. S. of Reese, Rimestone
Co., Texas. Elev. 650 ft. (an.) VIII. 8. 1955. (R.)
Edge of oak woods and adj. old field.

Very little.

Chorophaga 1 ad. 1 juv. (Teratopsia for Lewis).

Mel. flavidus type. 1 ♂ 1 ♀.

Cecanthus 1 swept.

Uth. $5 + 653 = 658$.

Uth. in. $0 + 6 = 6$

↓

1955.29 8 ms. S. of Bryan, Brazos Co.,
Texas. Elev. 400 feet. VIII. 9, 1955. (R.).

Roadside - largely native corn. All species
recognized taken etc. 1 Hadrotettix + 1
red-winged Arphia.

Cyphobella local, few seen but adult.

Meroclon very local, chiefly in very short sparse

Enicostolus very few - 1 taken. Grass.

Campylanthus 1 juv. taken.

Paraidemna common, large in low
mossy shrub.

Melanoplus diff. num.

" 2 other species - few.

Neurostethus speciosus few.

Cnecophorus striatus a few.

Orth. $54 + 658 = 712$.

Other ins. $2 + 6 = 8$.

↓

1955.30 10 ms. NW. of Navasota,
Brazos Co., Texas. 325 ft. elev.
VIII. 9, 1955. (R.)

Sand spurs and short + medium
height grass under open oak woods.

Little variety - everything recognized
taken.

1955.30 (cont.).

Syrphula num.

Merniria a fair no. - long flying.

Cephus a few.

Aphid a number, free-flying.

Short-wing. Melanophus largely in tandem.

Orth. 26 + 712 = 738.

Other no. 0 + 8 = 8.

↓ 1955.31 2.5 ms. W. of Washington, Washington
Co., Texas. Elev. 350 ft. VIII.9, 1955. (R.).

Roadside native cover - tall grass,
yellow-flowered mimosa-like tall
shrub, scattered low mesquite.

Everything recognizable taken etc. Mel. diff.

Pseudomyia, a few juvs. swept.

Stegomyia a number of juvs. swept

Syrphula abundant, ad.

Merniria " all ad.

Cephus few, ad. + juv.

Campoplex ad. - juvs in a number of species.

Neopentia species number.

Melanophus robustus? 1 ♂, all seen.

" 2 th.-winged spp.

Anthomyia retundif. 1 ♀ swept.

Orth. 34 + 738 = 772

Other no. 0 + 8 = 8

✓ 1955.32 5 ms. S of Peters, Austin Co.,
Texas. Elev. 250 ft. VIII. 9, 1955. (R.)

Small sand area and roadside Fall
wrecks. All species recogn. taken exc.

1 Schistocerca.

Brumma 1 ad. ♀ swept from Fall wrecks.

Mermiria numerous.

Agrostotettix, a few.

Chortophaga a few adults, ^{seen (1 taken)} 1 juv. taken.

Hippiscus a number, long-flying.

Psittidia small colony in same area.

Spharagemon cristatum 1 taken, all seen
in sand area.

Paraidemna few - 1 taken.

Cneph. tritarsis a few.

Orth. 14 + 772 = 786.

Usteria 1 + 8 = 9.

✓ 1955.33 10 ms. S. of Columbus,
Colorado Co., Texas. Elev. 300 ft.
VIII. 9, 1955. (R.).

Roadside, coastal prairie conditions.
little variety.

All species recogn. taken ex Mermiria
+ Hippiscus.

1955.30 (cont.).

Syrbula num.

Mermiria a fair no. - long flying.

Cephus a few.

Aphid a number, free-flying.

Short-wing. Melanophus largely in tandem.

Orth. $26 + 712 = 738$.

Other no. $0 + 8 = 8$.

1955.31 2.5 ms. W. of Washington, Washington
Co., Texas. Elev. 350 ft. VIII.9.1955. (R.).

Roadside native cover - tall grass.

yellow-flowered mimosa-like tall
shrub, scattered low mesquite.

Everything recognizable. Taken etc. Mel. diff.

Pseudomyia, a few juvs. swept.

Stegomyia a number of juvs. swept

Syrbula abundant, ad.

Mermiria " all ad.

Cephus few, ad. + juvs.

Campylomma ad. - juvs in a number of nests.

Neopentia species numbers.

Melanophus robustus? 1 ♂, all seen.

" 2 th.-winged spp.

Anthomyia rotundif. 1 ♀ swept.

Orth. $34 + 738 = 772$

Other no. $0 + 8 = 8$

✓ 1955.32 5 ms. S of Peters, Austin Co.,
Texas. Elev. 250 ft. VIII. 9, 1955. (R.)

Small sand area and roadside fall
weds. All species recogn. taken exc.

1 Schistocerca.

Brumnia 1 ad. ♀ swept from fall weds.

Mermiria numerous.

Agrostotettix, a few.

Chortophaga a few adults, ^{seen (1 taken)} 1 juv. taken

Hippiscus a number, long-flying.

Psittidia small colony in same area.

Spharagemon cristatum 1 taken, all seen
in sand area.

Paraidemma few - 1 taken.

Cneph. tritars a few.

Orth. 14 + 772 = 786.

Utheria 1 + 1 = 2.

✓ 1955.33 10 ms. S. of Columbus,
Colorado Co., Texas. Elev. 300 ft.

VIII. 9, 1955. (R.).

Roadside, coastal prairie conditions.
little variety.

All species recogn. taken ex Mermiria
+ Hippiscus.

1955.33 (cont.)

Syrphula, a few.

Asphondylia, ditto

Asperotettix spurius, a few.

Melanocephalus sp. 1 ♀.

Conocéphalus sp. 1 ♂.

Orth. 6 + 786 = 792.

Other ins. 0 + 9 = 9

✓ 1955.34 5 ms. S. of Altair, Colorado
Co., Texas Elev. 275 ft. VIII. 9, 1955: (R.)

Coastal prairie conditions, but with
sand open at road edge. Everything
muzzled Fahren.

Pseudoscorpion 1 juv. asept.

Syrphula common, ad. & juv.

Amblystipidia a number of small juv.

Hippisus ^{Chortophaga} 1 juv. asept. a number seen, 1 taken.

Campylacantha a few juv.

Melanocephalus th.-w. 1 asept.

Orth. sp. 1 ♂ taken

Scudderina 1 adult taken, also sev. juv. notes.

Orth. 19 + 792 = 811

Other ins. 0 + 9 = 9

✓ 1955. 35 Coleta Creek, 1.5 ms. WSW. of
Raisin, Goliad Co., Texas. Elev. 70
feet. VIII. 10. 1955. (R.)

Roadside park with short grass under
live oak and tangle of tall weeds & ferns
and similar vegetation bordering park.
All species new. Taken.

Mercuria numerosa.

Urophyllo 1 seen & taken.

Acrostellix a small number.

Cephia 1 juv. Taken, sev. ads. seen.

Chortophaga 1 ad. Taken.

Spharagemon cristatum type. a few ads. ^{on sandy spots} juv.

Schistocerca juv. Taken - no adults seen here.

Pirindia a few on sandy spots

Hesperotettix pratensis a fair no.

Paraidemona numerosa.

Melanoplus sh.-w. Local.

Rumalis 2 Taken at separate points
in tall weeds.

Anthrenomyza lucastiae in tall weed,
three taken.

Neocoryphalus one in ditto

Conocoryphalus strictus? 1 ♀ deep red brown.

Orth. 4 + 811 = 852

Orth. ins. 0 + 9 = 9.

✓
1955.36 Goliad State Park, Goliad, Goliad
Co., Texas. Elev. 175 feet. VI. 11. 10. 1955. (R.)

Natural vegetation of area - park-like like
live oaks, mesquite and a few other species
of trees with heavy undergrowth of tall
tangled grass, native shrubs and prickly
pear.

Everything very young, adult was taken etc.

1 Stenocranus which alighted too high.

Stenocranus 1 juv. swept.

Pseudoceryle imm., appar. not mature.

Mermis a few.

Syrphid . juv. only.

Amblytropidia a few juv.

Mesochorus a few.

Spharagemon cristatus a number, two taken.

Psittidia a few, local.

Chortophaga a few.

Aeghen a few, a pair taken separately.

Schistocerca or. juv. taken.

Neopenthetix opaciro a few.

Paraidemona common.

Mel. diff. a few.

" long-w. sp. 1 taken.

" sp.? juv. taken.

Pediobates 1 jumping in fall
winds

Cnemidophorus striatus 1 ♂ taken.

Orth. $51 + 852 = 903$.

Orth. ins. $0 + 9 = 9$.

✓ 1955. 37 5.5 mi. SW. of Woodboro,
Refugio Co., Texas. Elev. 25 ft (approx.)
VIII. 10. 1955. (R.).

Roadside weeds and grasses, some
Covacacia. Everything recognizable.

Litaneutria 1 very small one taken.

Diapheromera - Pseudoscorpion num.

ads. of former largely males.

Microctonus a very few.

Cephalothrips not common.

Mermiria a few.

Chiroptera 1 ♀ swept.

Cnemidophorus 1 ♂ taken.

Orth. $29 + 903 = 932$.

Orth. ins. $2 + 9 = 11$.

✓ 1955-38 Nueces River crossing, 5 ms.

SSW. of Odem, Nueces Co., Texas.

Elevation 40 feet. VIII. 10. 1955. (R.)

Syrphula a number

Asperitettix speciosus numerous.

Melanoplus th. w. sp. a few.

Paraidemna, a very few.

disturbed area, also apparently
drought damaged, open and edge
of mesquite, acacia and cottonwood
tangle bordering river bank.

Very little seen - all recogn. Taken

ex c. M. diff. - sev. Mermiria. very poor.

Orth. 10 + 932 = 942

Orth. ins. 0 + 11 = 11.

✓ 1955 39 1.5 ms. W. of Charwood, Nueces
Co., Texas. Elev. (alt.) 60 ft. VIII. 11. 1955. (R.)

Roadside tall grass with mimosa.

Virtually no C. except multitude of
phasmids, almost all juvs. Blispheron -

Pseudoscorpion. 1 juv. Syrphula?, 1 Alpina taken. 'C. very poor'

Orth. 15 + 942 = 957

Orth. ins. 0 + 11 = 11.

1955.40 8 ms. S. of Robstown, Nueces Co.,
Texas. ^{ca. 60 ft.} Elev. . . . VIII. 11. 1955. (R.)

Roadside in drought-stricken cotton country.

Virtually nothing. 1 Mermiria lost.

1 juv. phorid + 2 juv. melanopids.

Uth. $3 + 957 = 960$.

Uth. ins. $0 + 11 = 11$.

1955.41 7 ms. S. of Kingville, Kleberg Co.,
Texas. Elev. 5 ft. (an.) VIII. 11. 1955. (R.)

Roadside with low mesquite, prickly
pear, tall grass + weeds.

Almost nothing.

Choromera ♀♀ swept. 1 ♂ Choropetal
swept. 1 Mermiria.

Uth. $5 + 960 = 965$.

Uth. ins. $3 + 11 = 14$

1955.42 3 ms. S. of Santa Fe, Kinney Co.,
Texas. Elev. 40 ft. (an.) VIII. 11. 1955. (R.)

Northern edge of sand dune area - dunes
are fixed and largely covered with low
ground cover and scattered groves of
low oaks. Everything recognizable taken.

1955 42 (cont.)

Immature phasmods, numerous. Pseudoscorpion,

numerous.

One-headed Fungus - ? "Radiostation" ? Juv. only.
Paraidemna 1, all juv. Juv. 3 instars.
Juv. melanoploid - 1 instar.

Blischopygus all juv. numerous, and
in at least 3 instars.

Cycloptilum 1 instar.

Orth. 27 + 965 = 992.

Orth. ins. 2 + 14 = 16.

↓
1955:43 10 mi. S. of Santa, Kenedy Co.,
Texas. Elev. 40 feet (an.). VIII.11.1955: (R.)
Sand dune area. The dunes here immobilized
and covered with heavy matted corn and
tall grass. Very difficult to penetrate and
work. All recogn. species taken except 1
flying Mermis.

Pseudoscorpion in various instars, numerous.
Cyphodactylus 1 instar.

1 juv. melanoploid - juv.?

Blischopygus very small juv. numerous.

Orth. 16 + 992 = 1008

Orth. ins. 0 + 16 = 16.

✓ 1955.44 4 ms. S. of Armstrong, Kenedy
Co., Texas. Elev. 25 ft. VIII. 11. 1955. (R.) ✓

On sandy soil with scattered mesquite
and much prickly pear. All species
recognized except them.

Alphulella 1 swept.

1 juv. green and white mottled melanophilis-
gimus?? not Campylacantha? What?

✓ Ellichoptala all swarmed over in vast
to shoulder high "brown-eyed Susan"
composites. Two adult ♀♀ taken, 2
♂♂ in instar preceding maturity -
but could not locate any ♂ ad.

Ultr. 9 + 1008 = 1017.

Ultr. vis. 3 + 19 = 22.

✓ 1955.45 2 ms. S. of Uterria, Willacy
Co., Texas. Elev. 145 ft. VIII. 11. 1955. (R.)

Roadside weeds & grasses, much
sandspur, some "brown-eyed Susan"
composites. Everything seen taken.

Paraidemora, very local.

Ellichoptala 1 juv. ♀ swept.

Ultr. 8 + 1017 = 1025.

Ultr. vis. 2 + 22 = 24

1955. 46 3.5 ms. S.E. of San Benito, Cameron
Co., Texas. ^{Crisp 35 ft.} VIII. 12. 1955. (R.)

Roadside full grass and weeds, chiefly
in drain. Nothing exc. ^{juv.} Whitopetala
and 1 ad. Coryphæus fasciatus Type.
Nothing at all found along edge of patch
of natural tree and brush cov.

Orth. 3 + 1025 = 1028.

Uther ins. 0 + 24 = 24.

1955: 47 2 ms. S. of Uvito, Cameron
Co., Texas. Elev. 50 feet. VIII. 12. 1955. (R.)

Old field grown up in weeds and with
grass patches, remnants of original
cov. here and there.

All U. seen, taken, and by sweeping.
Juv. Stagmomantis green & brown, latter
with red. & cand. form. dark distad.

Paraidemna sev. ♂.

Juv. melanophids. - 3

Whitopetala juv. ♀, all seen.

Orth. 9 + 1028 = 1037.

Uther ins. 0 + 24 = 24

✓ 1955: 48 3 mo. C. of El Jardin,
N.E. of Brownsville, Cameron Co., Texas.
VIII. 12. 1955 (R.). Elev. 30 ft.

Low, open natural corn, nothing
higher than knee, mimosaes and
composites, grasses - some prickly pear.
Juv. Stagmomantis, quite small, script.

Parademna ov. adults, seemed more
partial to a low plant which in structure &
foliage suggested Californian chamise.
Blapheromura ad. ♂ - ad. ♀ - juv.
script.

Elchopetala, apparently two species,
but a single male of one with double
curves 2, and last stage juv. of
both sexes - even younger ones of the
other, the males of which seem to have
simple falcate curves.

Orth. 23 + 1037 = 1060

Orth. ins. 3 + 24 = 27.

✓ 1955.49 12 ms. W. of Boca Chica,
Cameron Co., Texas. Virtually at
sea-level. VIII. 12. 1955. (R.)
Natural cover of waist-high shrubs -
some acacia, others different spiny
types, but almost everything spined.
Also masses of sapphire or pickle-
weed. All C. seen taken.

Juv. Stagmomantis sp. swept.
Pseudoeurycea 1 ♂ ad. "
Heliophrynus ad. ♀♀ " 1 juv. also.
Paraidemna sp. ad.
Juv. melanoptid sp.
Oecanthus 1 ad. swept.

Orth. $16 + 1060 = 1076$.

Other ins. $2 + 27 = 29$.

✓ 1955.50 8 ms. W. of Brownsville.
Cameron Co., Texas. Elev. 125 feet.
VIII. 13, 1955. (R.)

Area of roadside woods bordering
swamp of mesquite and retama.

1 juv. app. of Platylastota, on ground.
Paraidemna local, in low cover, adults &
? juvs.

Ellichopitula abundant, but largely immature.
In variety of weeds, Hunted particularly
for adults, but virtually all were
taken by sweeping.

Cucanthus swept.

Orth. $45 + 1076 = 1121$.

Other ins. $3 + 29 = 32$.

1955.51 .5 m. SE. of Loo Indios,
Cameron Co., Texas. Elev. 110 feet.
VIII.13.1955 (R.).

Roadside weeds of various types in
and about low mesquite.

Oligonicella very small juv. swept.

1 juv. Stagmomantis swept.

1 " Thelypteris swept - search for more
reproduction.

Pseudoscorpion 1 ad. + juv. ♂♂. swept.

Diapheromera 2 ad. ♀♀. swept.

Paraidemna ad. - juv. on ground or
in lowest cover.

Ellichopitula in various medium-height
weeds, but in partic. in one of strict types.

Orth. $33 + 1121 = 1154$

Other ins. $1 + 32 = 33$.

1955.52 2.5 ms. W. of Progress.

Hidalgo Co., Texas. Elev. 125 feet.

VIII. 13, 1955. (R.).

Grass along edge of and within mesquite thickets and with areas of rather dense grass, in large part sun-cured. No Q. except mantids, all latter taken by sweeping grasses.

Uligoniella 1 ad. ♂, approx. 2 ad. ♀ and
nw. juvs.

Stagmomantis all juvs..

Orth. 9 + 1154 = 1163.

Orth. ins. 0 + 33 = 33.

✓ 1955.53 Near Los Alamos (west of Mission about
12 ms.), Hidalgo Co., Texas. Elev. 300 feet
VIII. 13, 1955.

So. Texas scrub, disturbed only by grazing,
made up of mesquite, huisache, prickly
^{joint cactus,} Croton and numerous other
spiny shrubs. Almost no grass and
only small patches of weeds. Everything
dried.

Wormed Chrysomelids 1 nearly ad. ♀ swept.
Juv. melanophil. ditto.

Chrysomelids prob. 2 spp. 1 by male only, others

presumably the same as those taken earlier
in the day. All swept, and largely
from one species of undergrowth.

$$\text{Orth. } 10 + 1163 = 1173.$$

$$\text{Orth. ins. } 0 + 33 = 33.$$

1955.54 4 ms. N. of Edinburg, Hidalgo Co.,
Texas. Elev. 100 feet. VIII. 14, 1955. (R.)
Roadside weeds - no O.

$$\text{Orth. } 0 + 1173 = 1173.$$

$$\text{Orth. ins. } 50 + 33 = 38.$$

1955.55 1 ms. N. of Fayville, Hidalgo
Co., Texas. Elev. 100 feet. VIII. 14, 1955. (R.)
Roadside and adjacent field on sandy
ground. Nothing in O. except two
juv. - one Gryllus - the other prob.
Cryptulidia!

$$\text{Orth. } 2 + 1173 = 1175.$$

$$\text{Orth. ins. } 9 + 38 = 47.$$

1955.56 8 ms. N. of San Marcos,
Hidalgo Co., Texas. Elev. 60 feet.
VIII. 14, 1955. (R.)

Roadside weeds and hollow with

1955-56 (cont.)

variety of vegetation.

Syrphula ad. + juv. in low cover in field.

Heliopsis: heliophanera + Pseudosyrphula
general, few adults.

Heliopetalus 1 female in rock area.

Conocrepis 1 juv. swept.

Orth. 23 + 1175 = 1198.

Orth. ins. 2 + 47 = 49.

↓
1955-57 3.25 mi. N of Encino, Brooks
Co., Texas. ~~Oct. 14~~ VIII. 14, 1955. (R.)

Roadside with scattered low cover on loose
sand. Anything recognizable. Taken except
few long-flying Aphidius.

Phasmoda, all juvs. swept from waist-
high weeds. Parasitomorpha 1 on ground.

Mermiria in short grass, all seen.

Juv. Heliopetalus swept from waist-high
weeds.

Orth. 15 + 1198 = 1213.

Orth. ins. 4 + 49 = 53

✓ 1955.58 1 m. N. of Barroco, Brooks Co.,
Texas. Elev. 140 feet. VIII. 14, 1955. (R.)

Roadside shallow drain in soft sand,
with grass and mixed medium-high
corn. All wegn. forms taken

No definite assoc. with any specific plants.
Chaptalia mod. num. but few adults.

Syrphid juvs. a few.

Photocera texana a pair, in ground.

Large pupa juv. Truxalis ?? Juvs ??

Melanophus flavidus type 1 ♂ in low
corn.

Caridema one in very low corn.

Chrysotela in tw. plants, 1 ♂, sev. ad.

♀ and a number of juvs.

Orth. 31 + 1218 = 1249

Orth. mis. 1 + 53 = 54.

✓ 1955.59 7 ms. N. of Falfurrias,
Jim Wells Co., Texas. Elev. 175 feet.
VIII. 14, 1955. (R.)

Low corn of short grass with many
patches of very low acacia or similar
minora-like plant, and others of
tall weeds.

1955.59 (cont.)

1 juv. Blapheromera swept.

Syrphula 1 juv.

Large green juv. Truxalid 1.

Apria, a few in short grass.

Mesochorus 1 ♀ in short grass.

Parasidomus 1 on ground.

Neoromphalus 1 in tall grass, another seen.

Elidoptata in both tall weeds and in low areas like corn.

Orth. $16 + 1244 = 1260$

Orth. ins. $2 + 54 = 56$

✓ 1955.60 5.5 ms. W. of Alice, Jim Wells Co., Texas. Elev. 225 feet. VIII. 15, 1955. (R.)

Roadside with very short grass, scattered mesquite and random branches of tall grass.

Blapheromera - Pseudosmyla swept generally.

1 juv. Syrphula in short grass, Apria seen in same.

Parasidomus in same corn.

Elidoptata 1 juv. from weed tangle.

Neoromphalus & Sudderia from

Full grass patches.

Arth. 15 + 1260 = 1275.

Uther ins. 1 + 56 = 57.

1955.61 10.5 ms. W. of San Diego,
Imperial Co., Texas. Elev 500 ft. VIII.15.1955.
(R.).

Roadside spots of vegetation along a
cross-drain, on a limestone base.
Short grass & weeds.

Diapheromera 1 juv. ♀. kept.

Syrphula num. but largely immature.

Paraidemona numerous in the
lowest corn.

??? Oedemerus? 1 juv. ♀. Taken from
one of a small stand of the bluish
gray shrub (photo plant sample 1).

All seen.

Prob. Colemanella guggi det Smith

Campylanthus 1 juv. kept.

Chiroptata sev. very small juvs.

kept.

Neoscorpheus 1 from tall grass.

Arth. 32 + 1275 = 1307.

Uther ins. 2 + 57 = 59.

✓ 1955.62 17 ms. W. of San Diego,
Imperial Co., Texas. Elev. 480 ft. VIII.15.1955.
(R.).

Roadside weeds and grass patches in
a badly overgrazed and drought-stricken
general area.

Everything seen taken.

Chapheromera juv. mpt. (1 has regenerated
from leg.)

Mormonia 1 ♂ taken.

Syrphula juv. taken.

Campylacantha 1 juv. mpt.

Neomorphalus ^{Microptala 1 juv. mpt.} ♀ in grass patch.

Orth. 8 + 1307 = 1315.

Orth. ins. 2 + 59 = 61.

1955.63 5 ms. W. of Freer, Imperial Co.,
Texas. Elev. 600 ft. VIII.15.1955. (R.)

Nothing seen exc. 1 large cantharid beetle.

Orth. 0 + 1315 = 1315.

Orth. ins. 1 + 61 = 62.

✓ 1955.64 11 ms. W. of Freer, Imperial
Co., Texas. Elev. 600 ft. VIII.15.1955. (R.)

Roadside weeds and grasses.

All seen taken exc. 1 Pch. verna, lost.

Syrphula a few adults.

Thermobia a few, 2 ♀♀ Taken.

Paraidemna, a few, in ground on
low corn.

Juv. Schistocerca

Juv. melanoplids - fauna?

Microptala ov. juvs. unsp.

Orth. 10 + 1315 = 1325.

Other ins. 2 + 62 = 64.

↓ 1955.65 31 ms. W. of Freer, Webb Co.,
Texas. Elev. 500 ft. VIII. 15. 1955. (R.)

Roadside with short and tall grass,
and almost no weeds.

Everything recognized Taken.

Small colony of Encyrtophorus on
almost bare whitish stony tilt.

Juv. Syrphula unsp.

✓ Paratettix in damp spot from rain
of yesterday.

Orth. 7 + 1325 = 1332.

Other ins. 2 + 64 = 66.

↓
1955-66 18 ms. E.N.E. of Laredo, Webb
Co., Texas. Elev. 725 feet. VIII. 15. 1955. (R.)
Roadside mats of grass and weeds
in area recently soaked by heavy rains.

Anything recogn. taken.

Syrphula juv. only.

Therminia 1 ♀.

Euclyptophus ov. adults - 1 green juv.

Juv. Melanocephala.

Very small Helichoptera.

1 ad. ♂ Arctostema swept.

Catch 11 + 1332 = 1343.

Catchers. 0 + 66 = 66.

↓
1955 67 6 ms. N. of Laredo, Webb Co., Texas.

Elev. 550 feet (an.) VIII. 16. 1955. (R.)

Roadside drain at crossing of small
rill. Everything wet from last night's rain.

All species recogn. taken except 1 ad. Schistocerca

- 1 ♂ Helichoptera lost by jumping out of net!

1 ♀ Elaphromera swept.

Syrphula ad. - juv. not seen.

Phloxina 1 taken. * juv.

1 juv. Oedipodid. swept.

1 " Schistocerca in weeds.

Melanophus flavidus type. 1 ♀. all run.

Campylura a number of juvs.

Paraidemona a few.

Hichoputala 1 very small, juv. taken - 1
ad. ♂ lost!!!

Cnephala 1 ♂ swept.

Orth. $15 + 1343 = 1358$.

Other ins. $6 + 66 = 72$.

1955-68 12 mo. N. of Laredo, Webb Co.,
Texas. Elev. 720 feet (approx.). VIII. 16, 1955. (R.)

Roadside park with areas of undisturbed
grass, low mesquite, etc.

Everything recognized. Taken exc. Mermiria.

Syrphid chiefly immature.

Uria 1 swept from low ground corn.

Pterocera a few, 3 taken.

Campylura, 1 juv.

Paraidemona numerous.

ferruginous melanoptid 1 ad. ♀ - a number of

Hichoputala a number of juvs. in 3 instars.

Orth. $29 + 1358 = 1387$

Other ins. $1 + 72 = 73$.

✓ 1955.69

9 ms. N. of fork of U.S. 81 and 83 on
83, Webb Co., Texas. Elev. 850 feet (am.)

VIII. 16. 1955. (R.)

Roadside native cover - short grass,
tall grass, bluetts^(in bloom), low mesquite and
acacia. Everything recogn. taken.

Mermiria a fair number.

Syrphula - with adts. - juvs.

Parasidemia num. - some juv.

from melanophilid, 1 ad ♀, a num. of juvs.

Anthomyia lucaria 1 ♂ in tall grass.

Colts. $27 + 1387 = 1414$

Other vis. $1 + 73 = 74$.

✓ 1955.70 26 ms. N. of fork of U.S. 81 and 83 on
83, Webb Co., Texas. Elev. 675 feet (am.)

VIII. 16. 1955. (R.)

Roadside short and long grass, with
woods in some patches. All species
recogn. taken ex.c. 1 Schistocerca.

Pitaneutria 1 juv. impt.

Pseudocorymba 1 juv. ♀ ditto.

Mermiria a few.

Helichromypha a single ♂ impt.

Alpeia, a few.

Asphixia nr. ten., 1 taken.
Amphigomphus 14 swept.
Coronophorus 14 swept.
Urananthus 1 swept.

Uroth. $14 + 1414 = 1428$
 Uroth. no. $1 + 74 = 75$

1955.72 1 mi. S of Ashton, Kimble Co.,
 Texas. Elev. 620 ft (approx). VII. 16, 1955. (R.)

Roadside grass and weeds. Some areas of
 All species unog. Taken exc. 1 Schistocerca
Mermia a few.

Asphixia numerous in the grass.

Proctos a single ~~one~~ from ground surface.

Asphixia nr. ten., 1 taken.

Encyrtophorus numerous on bare soil,
 not at all difficult to capture.

Melampus sp. 1 juv. Parademonia
Coronophorus sp. 1 juv.

Uroth. $21 + 1428 = 1449$
 Uroth. no. $0 + 75$

1955.72 7 ms. N. of Carrizo Springs, Blinn Co., Texas. Elev. 660 ft. (an.) VIII. 16. 1955. (R.)

Broad roadside hollow with bare silt spots and otherwise heavily grassed with both long grass and short grass, and also some weeds.

1955.71 1 m. S. of Asherton, Blinn Co., Texas. Elev. 620 ft. (an.) VIII. 16. 1955. (R.)

Roadside grass and weeds. All species unrecognized taken exc. 1 Schistocerca.

Paratettix 1 swept in damp spot.

Sydna a few.

Paraidemona most numerous.

from Melanoplus. 2 ♀♀, all seen.

Campylacantha "Campyrotata" 1 ♂

Taken from mesquite.

Trimerotropis pallidip. 1 taken, all seen.

Orth. 12 + 1428 = 1440.

Orth. ins. 2 + 75 = 77

1955.72 7 ms. N. of Carrizo Springs, Blinn Co., Texas. Elev. 660 ft. (an.) VIII. 16. 1955. (R.)

Broad roadside hollow with bare silt areas and otherwise heavily grassed with

both long grass and short grass, and also
some weeds. All species recog. Taken
exc. 1 Chloroceryle.

Mermiria a few.

Agave numerous in shorter grass.

Polioptila one taken from ground surf.

Agelaius sp. seen. 1 taken.

Empidonax numerous on the silt.
rather hard in taking flight.

Melanerpes sp. 1 juv.

Parus numerous

Corvus sp. 1 juv.

With 21 + 1440 = 1461.

Other no. 0 + 77 = 77.

1955.73 3 ms. N. of La Pryor, Zavalla
Co., Texas. Elev. 920 feet (approx.) VIII. 16, 1955.
(R.).

Open roadside with tall grass, low
acacia and mesquite, occ. head high
mesquite, much prickly pear and some
joint cactus.

Syrphid a few, 1 juv. taken.

Polioptila 1 taken.

Campylorhynchus 1 juv. taken.

Melanerpes formicivorus sp. 1 taken.

1955.73 (cont.)

Helichoptala sw. juvs. swept.

Urch. 6 + 1461 = 1467.

Uther vis. 2 + 77 = 79

J 1955.74 5ms. NW of Uvalde, Uvalde Co., Texas. Elev. 1200ft (an.). VIII.17.1955. (R.)

Roadside tall and short grass with scattered minivaccuous low bush, sundew, etc.

Everything recog. taken.

Pitaneutria 1 ad. swept from ground.

Hiaphronera swept

Mermiria juv. 1 taken

Aphala nest juv. not seen.

Boopidon 1 ad. ♀ + 1 juv. in low corn, active.

Polocosa 1 swept.

Campylacantha juv. : 1 ad. "Campio" type.

Paraidemona numerous in low corn.

Melanophus sp. th. w. 1 ad. legs ??

Arctosa 2 ♂ swept.

Helichoptala juv. num. adults much less
freq. - swept from both low & high corn.

Cremaphana tristis 1 ♀ swept.

Oecanthus sw. swept

Urch. 49 + 1467 = 1516

Uther vis. 3 + 79 = 82

✓ 1955. 75 Laguna, Muecos River,
Uvalde Co., Texas. Elev. 1360 ft. (am.)
VIII. 17. 1955. (R.)

Broad grassy roadsides with bordering
brush, some spring, some all partly
under tall ashos.

All species recognized taken.

Diapheromera nupt, ad. - juvs.

Syrphula ad. - juvs. seen, adults taken.

Helichromorpha viridis ad. - juvs. in florula
juvs.

Paraidemna a few.

Melanoplus long-w. 2 ♀ all seen, taken.

" H. w. 1 pr. Taken.

Campylomera 1 ad. - no. juvs.

Juvs. melanopliids of two genera taken.

Helichopitula a few immatures.

Conophorus frictus 1 ♂, 1 ♀ taken.

Orth. 36 + 1516 = 1552.

Other ins. 1 + 82 = 83.

✓

1955.76 1 m. N. of Campwood, Real Co., Texas. Elev 1760 ft. (an.) VIII.17.1955. (R.)

Roadside tall grass & weeds, many spiny bushes. Lost 1 ♂ Heliopetala, everything else unrecognized. Taken.

Diapheromera minimus, 1 imp.

Syrphid a few, not taken.

Campylasanthia juv. only.

Heliopetala 1 ♀ ad. no. juv. taken.

Orth. $24 + 1552 = 1576$

Orth. no. $0 + 83 = 83$.

Cycloptilum
1 imp.

✓

1955.77 5 m. N. of Barksdale, Edwards Co., Texas. Elev. 2000 ft. (an.) VIII.17.1955. (R.)

Tall dense grass and scattered clumps of bushes. Very little here. Everything unrecognized. Taken ex. 1 Hippiscus.

Mesochorus ad. - juv. few.

Campylasanthia 1 juv.

Juv. of two melanoploid genera.

Heliopetala 1 ♀ - juv. taken.

Cycloptilum 1 imp.

Orth. $13 + 1576 = 1589$.

Orth. no. $0 + 83 = 83$.

1955-78 Escarpment rim of Edwards
Plateau, 11 ms. S.E. of Rock Springs,
Edwards Co., Texas. Elev. 2775 feet (an.)

VIII. 17. 1955. (R.)

Tall and short grass on broken limestone
surface, with stones varying in size from
pebbles to boulders. Very little. Everything
recogn. taken exc. 1 Mermiria - 1 Hades.
Mesochorus several juvs. taken.

Syrphula 1 juv.

Catch. $3 + 1589 = 1592$.

Catch. in. $0 + 83 = 83$,

1955-79 3 ms. NW. of Rock Springs,
Edwards Co., Texas. Elev. 2950 ft. (an.)

VIII. 17. 1955. (R.)

On Edwards Plateau, much broken
limestone, low tree cover, short - long
grass, some bushes. Very little O.

Everything recogn. taken exc. 1 Merm. - 1 Schist.
Stenomacrus 1 juv. inst.

Syrphula few, all juvs.

Mesochorus few, adults - juvs.

Platylabus 1 taken in fr., all seen.

1955:79 (cont.)

Schistocerca 1 juv. Taken.

Melanoplus laticornis? 1 ad. + 1 juv. Taken.

Acrida 1 juv.

Heteropoda 1 juv.

Cyrtopoda two mpt.

Orth. 16 + 1592 = 1608.

Other ins. 1 + 83 = 84.

✓ 1955:80 21 ms. S. of Sonora, Sutton Co.,
Texas. Elev. 2775 ft (an.) VIII. 17, 1955. (R.)

On Edwards Plateau limestone, roadside
winds of various types (sagebrush, Foothill
winds, sandpurs, etc.), and tall grass.

Everything mpt. Taken.

Campylacantha 1 juv. Taken.

Acrida 1 juv. mpt.

Heteropoda 1 ad. ♂ + 1 ad. ♀ + juv. in
mpt. stage, all in tall grass.

Oecanthus, 1 mpt.

Orth. 14 + 1608 = 1622.

Other ins. 1 + 84 = 85.

✓ 1955.81. 3.5 mo. W. of Sonora, Sutton Co., Texas.
Elev. 2450 feet. VIII. 18. 1955. (R.)

Tall grass at cross drain and roadside
Tall grass and low corn. Everything
recogn. taken exc. 1 flying Arctia.

Syrphula adults.

Mel. diff. 1 taken, all seen.

Small melanophids. ^{seen} taken.

Pediocetes 1 ♀ in tall grass.

Micropterus both seen ad. & juv.

~~all~~ Many juv. seen.

Uth. 20 + 1622 = 1642

Uth. no. 0 + 85 = 85.

✓ 1955.82 23 mo. W. of Sonora, Sutton Co.,
Texas. Elev. 2850 ft. VIII. 18. 1955 (R.)

In very tall waxy grass and a few
woods ⁱⁿ roadside drain. Everything
recogn. taken.

Elipheromera 1 ♂ taken.

Boopis 1 very sm. juv. taken.

Tropidolophus 1 juv. ⁱⁿ that grass

Campylacantha juv.

Melanophan 1 juv.

1955.82 (cont.)

Chrysometala 1 ad. pair (not in collection)

• juvs. in taller grass.

Cyanocitta 1 imm.

Count. $13 + 1642 = 1655$.

Other vis. $1 + 85 = 86$.

1955.83 27 ms. W. of Sonora, Crockett
Co., Texas. Elev. 3150 feet. VIII. 18. 1955. (R.)
Roadside tall grass, but ground deeply
cracked by earlier drought. Nothing
except 1 Mel. parkmani noted or taken.

Count. $1 + 1655 = 1656$.

Other vis. $2 + 86 = 88$

1955.84 7 ms. W. of Arizona, Crockett
Co., Texas. Elev. 3280 feet. VIII. 18. 1955. (R.)
Roadside short grass and low weed patches.
Everything recognizable. Taken.

Chrysometala ad. ♂♂ - juvs.

Syrnola juvs. only. 3 imm.

Cephus 1 ad. - 1 juv. Taken.

Ammodramus pallid. 2 seen, 1 taken on
tree spots.

Melanerpes juvs. only.

Chrysometala juvs. only.

Count. $17 + 1656 = 1673$.

Other vis. $0 + 88 = 88$.

1955.85 26 ms. W. of Ozona, Crockett
Co., Texas. Elev. 3350 feet. VIII. 18, 1955. (R.)
Roadside. Nothing except 1 juv.

✓ Heichoptula.

1955.85 6 ms. E. of Sheffield,
Crockett Co., Texas. Elev. 2625 feet.
VIII. 18, 1955. (R.)

Ranch pass on roadside and bottom
land on east side of Pecos River.

Everything recogn. Taken exc. 1 Heich
Mermiria a number, both sexes taken.

Pyrrhula a few.

✓ Parornitha a single one seen - taken.

Campylorhynchus adts + juv.

Mel. calurus 1 ad. + 1 juv.

" two other species, adts. Taken.

Heichoptula 1 juv.

Orth. 16 + 1673 = 1689.

Orth. ins. 1 + 88 = 89.

✓ 1955.86 9 ms. W. of Sheffield, Pecos
Co., Texas. Elev. 2875 feet. VIII. 18, 1955. (R.)

Covillea - mang. behind vine.

Roadside full pass + other lower corn.

Everything recogn. Taken.

1955.86 (cont.).

Boottia num. in Corilla. ad. -

juvs. largely adult.

Upeia a in roadside corn, ad. -

juvs.

Mermiria a few in ditto.

Campylacantha just becoming adt. in roadside

Mel. lachrym one ♂ roadside.

" diff. 1 taken "

" other sp. both sexes. "

Helicopetala ad. ♂ - ♀ + juvs. "

Orth. 39 + 1689 = 1728,

Orth. inv. 2 + 89 = 91

✓ 1955.87 4.5 ms. W. of Bakerfield, Pecos
Co., Texas. Elev. 3260 ft. VIII.18.1955. (R.)

Roadside. Sparse grass - low bushes.

Also heavy grass and weed corn along
a cross drain wash. Also a few Corilla.

All sps. noted secured.

Boopis 1 ♂ taken in low corn.

Upeia a very few juvs.

Schistocerca 1 juv. in fall rank grass.

Campylacantha a few juvs.

Melanoplus diff. 1 taken, a few others seen.

" lachrym A number in fall grass.

Eusara 1 very sm. juv. swept.
Helichoptata 1 ad. pair (separately) and
juv. One of the adults was
in Corilla.

Chenanthus 1 swept in tall weeds.

Orth. 15 + 1728 = 1743.

Other ins. 1 + 91 = 92.

↓ 1955. 88 6.5 mi. W. of Fort Stockton,
Pecos Co., Texas. 3900 feet VIII. 19. 1955. (R.)

Roadside vegetation - short grass &
tangles of tumble-weed and numerous other
low-lying plants. Everything swept.
Taken ex. I. Minima, 1 ad. Boopis &
1 Campylomma a "lamp".

Apia or juv.

Boopis 1 very small juv.

Trin. pallidipennis or. seen, 1 taken.

Mel. laticornis 1 ♂ taken.

" long-winged 1 ♂ taken.

Sh. winged melanoplid; taken, all noticed.

Helichoptata pair taken in diff. ops. bushes.

Anthracopha 1 ♂, 2 ♀ All from tall weeds.

Orth. 12 + 1743 = 1755.

Other ins. 2 + 92 = 94

✓ 1955-89 2 ms. SW. of junction of U.S. 290
and U.S. 67 [this 10 ms. W. of Fort Stockton],
Pecos Co., Texas. Elev. 4075 feet. VIII. 19, 1955. (R.)
Roadside with short grass (undisturbed)
and various weeds (furniture weed among them).
Very little. Everything recognizable except
Mermiria.

Trinervus pallidip. 1 taken.

Upeia a few.

Melanoplus lachrym. a few.

Chiroptera 3 ♂, 1 ♀ ad. Taken, imm. juv.

Orth. 9 + 1755 = 1764.

Orth. ins. 1 + 94 = 95.

✓ 1955-90 Road saddle in hills, 15 ms. SW. of
junction of U.S. 290 and U.S. 67 (W. of Fort ~~Stockton~~
Stockton). Pecos Co., Texas. Elev. ~~4000 ft.~~ ^{4800 ft.}
~~but prob. too high - check.~~ VIII. 19, 1955. (R.)
Juniper about on slopes. Sun-cured short
grass, green - sun-cured bunch grass, various
low shrubs, some in flower.

Pseudosymple imm. only in part adult, in
tall bunch grass.

Parabiolus 1 ♀ from bunch grass.

Mermiria Texana 1 ♀, all seen.

Small melanophid, two taken, all
recognized.

Helioptata juss. abundant, few adults,
in a variety of plants.

Orth. $20 + 1764 = 1784$.

Other ins. $2 + 95 = 97$.

✓ 1955-91 31.5 mi. SW. of junction of
U.S. 290 - U.S. 67, Brewster Co., Texas.
[5 mi. S. of Noory side road). Elev. 4750
feet. VIII. 19. 1955. (R.)

Short grass, with patches of tall grass,
various low weeds, on micaceous
low plant in bloom, the flowers red and
orange. Everything recognized. Taken.

Chlaenius chiefly immat.

Meloidae neomex. few.

Carabus one taken only one seen.

Juv. from Fusoides minor.

Boopis juss only, a few.

^{Pantolites}
Meloidae juss. numerous.

Dactylotus, 1 pair (mated) in low matted growth.

Helioptata 18 inst.

Orth. $38 + 1784 = 1822$.

Other ins. $4 + 97 = 101$

fin
in
p.

✓ 1955.92 11 ms. W. of Marathon, Brewster
Co., Texas. Elev. ^{ca. 4200 ft.} (not out). VIII. 19, 1955. (R.)
Roadside very tall rank grass in drain
and also native low corn on drier tilt.
Everything recognizable. Taken ex. Trepidolophus.
Upeia 1 taken.
Boopis 1 juv. taken.
Campylacanthus juv. only.
Melanophus lachrymans juv. + adults a
number.

" Long-winged species. Humal.
Phortulites 1 ad. taken
Conosphaerus stritus ads. - juv. number.
Ultr. 23 + 1822 = 1845.
Ultr. no. 8 + 101 = 109.

✓ 1955.93 7 ms. S. of Marathon, Brewster
Co., Texas. Elev. ^{ca. 4100 ft.} (check) VIII. 19, 1955. (R.)
Greatly diversified roadside - acacia,
Koeberlinia, trunkwood and many other
types. Everything recognizable.
Chaperomera abundant, and in great
variety of plant com. One large group
was in Koeberlinia.
Hydrula a few seen, 5 taken.
Campylacanthus 1 juv..

Hesaphus hlichopetala scattered in
various com.

Urth. 29 + 1845 = 1874.

Urth. ins. 0 + 109 =

1955.94 15 mo. S. of Marathon, Brewster
Co., Texas. ~~Elev. (check)~~ VIII. 19. 1955. (R.)
ca. 3400 ft.

Black brush, tall bunch grass, low bunch
grass, and much other low cover.

Very limited variety. Everything unique.

Taken. No trace of formication in black brush.

Hesaphomera In fair nos., ad. + juv.

Paropromela a few in low bunch grass.

Trinervetrop. pallidip. a few - 1 Taken.

Chistocoma sev. juvs. Taken.

Hlichopetala in sev. diff. bushes.

Urth. 15 + 1674 = 1889.

Urth. ins. 1 + 109 = 110.

1955.95 1st. RR. station west of
Marathon (Altuda ⁴), Brewster Co., Texas.
Elev. (check from charts) ^{4625 ft.} VIII. 20. 1955. (R.)

Tall and dense grass and short grass on
barren ground. Everything unique. Taken
except 1 Mermiria. ad.

1955. 95 (cont)

1 juv. Mermiria in tall grass.

Andrena very few adults - many juv.
in shorter grass.

Boopis 1 juv. & all seen.

Trimerotropis pallid. one taken of several.

Tropidolophus taken in more open
ground with more scattered corn.

Melanophus lachrym. ad. - juv. several
in vgt.

.. long-w. sp. Helio.

Phaenocarpa a few juv. only.

Chrysobothris a single male in low growth.

Orth. 32 + 1889 = 1921.

Orth. 2 + 110 = 112.

↓ 1955. 96 6.5 mi. W. of Alpine, Brewster
Co., Texas. Check for elev. (E. of Paisano Pass).
VIII. 20. 1955. (R.).

Tall grass and patches of low native
corn. Very little adult. Everything recogn.
taken exc! 1 Mermiria.

Diaphanura 1 ♀ swept.

Boopis sev. juv. - 2 instars.

Melanophus lachrym. ad. - juv. a num.

Phaenocarpa sev. juv.

Orth. 16 + 1921 = 1937.

Orth. 1 + 112 = 113.

J
1955.97 Paisano Pass, Presidio Co.,
Texas. Elev. 5000 ft. VIII.20.1955. (R.)

Native grass com with scattered flint-
weed and native low shrubs. Everything
muzzed. Taken.

Pseudomys 1 ♂ muzzed.

Aulorana, ^{1 ad. ♂} juvs, ^{ditto} many, numerous.

Boopis very small juvs. only.

Syntherisma m. seen.

Tropidolophus 2 ♂, 1 ♀. in the same
group of com, but apparently none
~~were~~ They were not mated.

~~Hi~~ Arctomys, 1 juv. muzzed.

Arct. ~~FF~~²⁰ + 1937 = 1956.1957.

Arct. inc. 1 + 113 = 114.

1955.98 10.5 mo N. of Marfa. Jeff Davis
Co., Texas. Elev. ^{ca. 4900 ft.} (check) VIII.20.1955. (R.)

Sparsely low grass and very low weed com
on stony soil. Wind very high, storm
area nearby. All seen taken.

Boopis very small juvs. Aulorana ditto.

Xanthippus 1 female from trap. surface-
lived field.

Arct. 5 + 1957 = 1962.

Arct. inc. 3 + 114 = 117

✓ 1955.99 22 mo. WNW. of Marfa, ^{Chihu.}
Presidio Co., Texas. Elev. (an.) 4600 ft.

VIII. 20, 1955. (R.)

Wet roadside (heavy rain on whole area
sw. hours earlier). Tall grass and weeds.
Very muddy, very little morning or sun.
Thliaphidura. 1 juv.

Uta 1 juv.

Boreodon 1 very small juv.

✓ Parognathus 1 ♀.

Amblyura 1 ad. ♀.

Uth. 5 + 1962 = 1967.

Uth. ins. 6 + 117 = 123.

✓ 1955.100 4 mo. E. of Van Horn, Culberson
Co., Texas. Elev. circa 4000 ft. VIII. 21, 1955. (R.)
Open strand of mesquite and Covillea on badly
washed red silt and gravel. Almost nothing else.

Boottia same in Covillea, largely juv.

Uth. 9 + 1967 = 1976.

Uth. ins. 1 + 123 = 124.

✓ 1955.101 14 mo. E. of Van Horn (near
Wild Horse), Culberson Co., Texas. Elev. (an.)

3950 ft. VIII. 21, 1955. (R.)

Common various composites, black brush, mesquite,
& Covillea. Very little U. - all seen taken.

18 Pseudoceryle swept.

Bortellia a few - adts. juvs. in Coriller
Ellichopetula - juvs. only - in two different
species of plants.

Orth. 7 + 1976 = 1983.

Orth. ins. 9 + 124 = 133.

✓ 1955.102 1 m. E of Kent, Culberson Co.,
Texas. Elev (an.) 4250 feet chuck. VIII. 21, 1955. (R.)

Coriller, black brush & tall grass & assoc.
vegetation, little in flower.

Nothing in black brush. Everything
recognized.

Pseudoceryle 1♂ - 1♀ swept separately.

Bortellia num. in Coriller

Juv. Melanophus swept generally.

Atilophus 1 ad. ♂ in Coriller.

Orth. 16 + 1983 = 1999.

Orth. ins. 0 + 133 = 133.

1955.103 4.5 W & NE of junction of
U.S. 80 & U.S. 290, east of Pecos, Pecos Co.,
Texas. Elev. (an.) 3650 feet. VIII. 21, 1955. (R.)
Very much spaced and scattered corn with
with a few groups of tall brush grass at a

1955.103 (cont.)

Shallow wash drain under road.

Very little C.

Pseudosermyla ♂ - ♀ Taken separately in tall brush grass. 1 juv. also.

Helicophila juvs only - 1 in low black brush, the other in tall ^{rank} grass in wash.

Utth. $4 + 1999 = 2003$.

Utth. in. $2 + 133 = 135$.

✓ 1955.104 1.5 ms. E. of Toyah, Reeves Co., Texas. Elev. ca. 2800 ft. VIII. 21, 1955. (R.).

Roadside and wash vegetation. Short curly grass, tall brush grass, dense rank grass in wash and very low scattered cover in general.

Pseudosermyla in ~~various~~ ^{tall dry brush grass only.} plants.

Protopodon 1 juv. taken.

✓ Paropromela in both short curly and long brush grass, ad. + juvs.

Arctia 1 juv. swept.

Melanophus packardii Dyar, 1 ♂ all seen.

Utth. $24 + 2003 = 2027$.

Utth. in. $0 + 135 = 135$

✓ 1955.105 10 ms. S. of Pecos, Pecos Co., Texas. Elev. (an.) 2460 ft. VIII. 21, 1955. (R.)

Heavy mixed brush - dead oak, tall brush grass, flowering composites, low mesquite, Koberlinia and patches of a very low, close and mat-like com. Virtually no C. noted exc. Neichopetala, which here was all adult, and in a variety of situations - grass, Koberlinia and composites. But 2 males seen, 1 lost.

Utah. 8 + 2027 = 2035.
Utah ins. 1 + 135 = 136.

✓ 1955.106 22 ms. SE. of Pecos, Pecos Co., Texas. Elev. 2725 ft. VIII. 21, 1955. (R.)

Relatively heavy mixed growth on generally vlt. A few Covillea, many ^{low} composites, and a some of other components - ^{almost} no mesquite.

Boottettia a few in Covillea.

Tropidolophus all in or about a very low gray-green ground mantling plant - only one adult, but juvs. in 3 instances. ^{thin color patches} plant perfectly.

1955.106.

Juv. melanoplids. swept.

" Chrysomela swept.

" Anthrenus a round. swept.

Ichneumonidae all seen juv. exc. 1 ♀ taken
general in dist.

Cecanthis 1 swept.

Catch. $45 + 2035 = 2079$.

Other ins. $1 + 136 = 137$.

1955.107 } 2 ms. N.E. of fork of US. 290 - M. 67,
18.3 Ft. (Ft. ~~Waller~~)
" Pecos Co., Texas. Elev. 2800 ft. VIII. 22, 1955. (R.).
Low roadside com., mostly sparse. Almost
no D. Everything recogn. taken exc. 1 Mermis.

Pseudoceryle 1 juv. ♀. swept.

Apia a few, 1 ad. • 1 juv. taken.

Juv. Trinervus.

" Melanoplus seen.

Cyclopterus sev. swept

Cecanthis " .

Catch. $14 + 2070 = 2084$.

Other ins. $6 + 137 = 143$.

1955.108 ^{on US 67} 10 ms. E. of junction of U.S. 290
and U.S. 67 (E. of Ft Stockton), Pecos Co.,
Texas. Elev. (an.) 2450 feet. VIII. 22. 1955. (R.)

Tall rank grass (roadside at wash) and
spotty corn on more gravelly ground.
Everything recognizable. Taken ex. 1 Mermiria.

1 juv. Pseudoscorpion crypt.

Upeia 1 taken, all seen.

Boopis 1 juv., all seen.

Melanophus laticornis 1 ♂.

" sp. juv. number.

Eliphotula 1 ♂ + 1 juv. - former
had no hind legs when captured!

Ureanthus, sev. crypt.

Orth. 12 + 2084 = 2096.

Orth. no. 0 + 143 = 143.

↓ 1955.109 5.5 ms. E. of Mc Carney,
Upton Co., Texas. Elev. (an.) 2350 feet. VIII. 22. 1955. (R.)

Tall grass and weeds in wash drain,
and mesquite and black brush on gravelly
soil. Everything recognizable. Taken ex. 1 Mermiria.

A few Goniastus ^{(4) seen} in the scattered black
brush - two taken, these flushed on to
ground and then captured. They were

1955.109 (cont.)

sought refuge in the dead burned low
b. b. where roadside clearing had burned
all except the trees.

Pseudomyle 1♂ impt.

Opeia 1 taken.

Campylorhynchus 1 ad. + sev. juvs. Taken.

Oreanthus, a number impt.

Orth. 13 + 2096 = 2109.

Orth. vis. 0 + 143 = 143

1955.110. 12.5 ms. E. of Rankin,
Reagan Co., Texas. Elev. 2550 ft.

VIII. 22, 1955. (R.)

Roadside tangles of heavy grass, low
mesquite, cat-claw and black brush.

All species ungn. Taken ex 1 Mermiria.

Pseudomyle ♂♂ - juv. ♀.

Paraidemna 1 taken.

Campylorhynchus 1 ad. + sev. juvs.

Melanoplus sp. num. in var. plants -
grasses, tangles preferred.

Whitman sev. juvs.

Arctura 1 juv. impt.

Helichrysalis few adults but num.
juvs. In broad variety of com.
Ceanothus 3 mgs.

Orth 37 + 2109 = 2146.

Uther vis. 0 + 143 = 143.

1955. 111 5.5 ms. E. of Burnham,
Irion Co., Texas. Elev. 2450 feet. VIII. 22, 1955. (R.)
Roadside weeds - mainly non-erect.
Very little O. - everything recognizable.

1 Mammia.

Boopis 1 juv.

Meibomia fusiformis one on tree fr.

Paropneuste 1 juv. in tall grass.

Campylanthus 1 juv.

Helichrysalis 1 juv.

Orth 5 + 2146 = 2151.

Uther vis. 0 + 143 = 143

1955. 112 17 ms. ENE. of Burnham,
Irion Co., Texas. Elev. (an.) 2100 feet.
VIII. 22, 1955. (R.)

Low and waist-high native com.
curly grass. The two gray plant mentioned
in yesterday's notes, and tall grass in

1955-112 (cont.)

in small wash. Everything recognizable taken
exc. 1 Mermiria.

Diapheromera ad. red. ~~unseen~~ numerous.
also juvs.

Opeia a few.

Poropoda juvs. only.

Aganotettix 1 taken.

Tropidolophus 1 ad. + juv. in at least two
instars in same low gray green plants
as noted yesterday.

Melanoplus lachinus numerous.

Arctia 1 ad. ♂ swept. Macrostelma, one in
low corner

Helioptera a number not quite adult.

Arctia. $38 + 2151 = 2189$.

Arctia vis. $0 + 143 = 143$.

✓ 1955-113 1m. ENE. of Tankersley,
Tom Green Co., Texas. Elev. 1800 ft.

VIII. 22, 1955 (R.).

Short-tall grass and low and tall
winds. ^{in field} Everything recognizable taken exc.

1 Mermiria - 1 ad. Synchlora.

Synchlora juvs. taken.

Trimerotropis pallidus several seen, 1 taken.

" red-leg. 1 juv. taken.

Helichrysalis 1 ♀ Taken, all seen.

Orth. 6 + 2189 = 2195.

Other ins. 12 + 143 = 155.

1955.114 5 ms. NE. of San Angelo,
Tom Green Co., Texas. Elev. (an.) 2750 ft.
VIII.23, 1955. (R.)

Roadside tall grass and weeds, some in
runoff cut drain.

Everything recognized. Taken exc. 1 Melan.
diff. = 1 ad. Campylac.

Diapheromera in tall rank grass.

Mermiria several.

Paropomala 1 juv.

Campylacantha 1 juv.

Orth. 19 + 2195 = 2214.

Other ins. 3 + 155 = 158.

1955.115 3 ms. ENE. of Harriett,
Tom Green Co., Tex. Elev. (an.) 1640 ft.
VIII.23, 1955. (R.)

Medium high dry grass, low mesquite,
prickly pear, under scattered yucca-like
mesquite. Everything seen taken.

1955 115 (cont.)

Diapheromera in var. bushes including
low mesquite.

Mercuria actin, a number.

Syrphula ditto.

Trimeris, *pallidip.* a few

Campylacantha 1 ad - juv. taken.

Melanoplus flandus type sw.

Eliphotale 2 ♀ swept.

Orth. 15 + 2214 = 2229

Orth. in. 1 + 158 = 159

✓ 1955 116 .8 m. E. of Benoit, Runnels
Co., Texas. Elev. (an.) 1500 ft. VIII. 23, 1955.
(R.)

Roadside tall growth, thistle, sunflower,
sagebrush, low mesquite & small composite.

All species recog. taken.

Diapheromera in var. things.

Mercuria ad. & juv.

Syrphula numerous, adts.

Opis 1 taken.

Agerostethus 1 taken

Campylacantha 1 ad. taken.

Melanoplus diff. a few

" *pachardii* a number.

" *h. w.* species not numerous.

Conoph. thritus a few in tall grass.

Chicopetala in vicinity of vegetation

Quanthus general survey.

Orth. $41 + 2229 = 2270$.

Other ins. $0 + 159 = 159$.

† 1955.117 2 mo. W. of Valera, Coleman Co., Texas. Elev. (ann.) 1760 feet. VIII. 23, 1955. (R.)

Roadside, on one side disturbed corn with weed corn, on the other native corn. Everything recognizable.

Pseudoceryle in native corn.

Hydula admir. in disturbed corn.

" notata sp. in native corn.

Agrostis in the p. in native corn.

Mercuria frond.

~~7~~ Hadrotettix trond ranging,

Landing in lower areas.

Campylanthus, 1 in full grass.

Acridotettix sp. in full grass in dist. corn.

Mel. diff. ditto.

~~Quanthus~~ insp.

Orth. $17 + 2270 = 2287$.

Other ins. $1 + 159 = 160$.

✓ 1955: 118 5 mi. SE. of Coleman, Coleman
Co., Texas. Elev. (am.) 1550 ft. VIII. 23, 1955.

At roadside park. Native low corn, 1/2 R,
under scattered mesquite. Many
composites, prickly pear, etc. Everything
recogn. taken ex. 1 Mel. diff.

Pseudoceryle num. ♂♂ - juv. ♀♀.

Syrnula few. 1 juv. Taken.

Cephus a fair no.

Agelaius ditto.

Platylabus 2 seen on bare areas, not taken.

Tringoides - red leg. 1 Taken, all seen.

Coccyz Campylorhynchus chiefly juv.

Melanoplus sh.-w. species. ♂♂. ♀ taken

Urocyon all seen, ♂♂, ♀ taken top.

Paraidemna not numerous.

Blackto Elanoides general in
both brush & grass, but 1 male taken.

Rehnia nitens, 1 ♀ swept from
low corn, but near mesquite tree.

Amphisp. swept.

Orth. 39 + 2287 = 2326

Orth. vis. 1 + 157 = 160

1955.119 4 ms. S.S.W. of Brownwood,
Brown Co., Texas. Elev. (an.) 1420 ft.
VIII. 24, 1955. (R.)

Almost nothing. Roadside, mainly
weeds. 1 ♂ Pseudomyle. 2 juv. Polioptila.
1 juv. Syrrhaptes. 1 Alcedo.

Orth. 6 T 2326 = 2332.

Other vis. 0 T 160 = 160.

✓ 1955.120 8 ms. S.S.W. of Brownwood,
Brown Co., Texas. Elev. (an.) 1350 ft.

VIII. 24, 1955. (R.) Limestone surface.
Roadside, part tall rank grass, then low
grass and scrub corn. Anything recog-
nized exc. 1 Phrynosoma.

Pseudomyle both sexes adult, in grass.

Syrrhaptes adu. not seen.

Melanerpes a number.

Tringoides red-legged, a few on
bare spots, 2 taken.

Spizella a few, very active.

Geothlypis a few.

Campylorhynchus not seen, adu. - juv.

Melanerpes diff. a few.

" parvulus a number.

" flavipes type, sev. Taken

1955.120 (cont.).

Arctia 1♂, 2♀, swept singly, all seen.

Ureanthus swept.

Arctia. $33 + 2332 = 2365$.

Ureanthus. $2 + 160 = 162$.

✓ 1955.121 1 m. S. of Winchell, McCulloch Co., Texas. Elev. (an.). 1120 ft. VIII. 24, 1955. (R.) Roadside, largely native cover. Everything unrecognized taken.

Diapheromera 1♂ + 1 nearly ad. ♀.

Syrphula a few.

Thermobia numerous.

Platylabus sp. seen on lower aptos, 1 taken.

Melanophus sp. a few seen, 2 ♀ taken.

Arctia 1♀ swept.

Arctia. $11 + 2365 = 2376$.

Ureanthus. $0 + 162 = 162$.

✓ 1955.122 3 ms. NE. of Brady, McCulloch Co., Texas. Elev. 1700 ft. (an.). VIII. 24, 1955. (R.)

Roadside native cover on brown limestone. Everything unrecognized taken.

1 banded Trimerotropis, approx. same as taken at 1955.120.

Pseudomyle abundant, that is ♂♂,
mpt. generally.

Acrostichus few.

Melanoplus packardii none.

" thunbergii 1 taken.

Arctostichus mpt.

Uth. 21 + 2376 = 2397.

Uth. in. 0 + 162 = 162.

✓ 1955. 123 8.5 mi. S. of Brady,
McCulloch Co., Texas. Elev. 1550 ft
VIII. 24, 1955. (R.)

Native dried corn and some Fall
grass - weeds apparently abundant. Every-
thing recogn. taken esp. 1 Phisocera.

Pseudomyle and Diapheromera in
numbers, females much fewer.

Tricentropis pallid. a few.

Melanoplus calvus 1 taken.

Arctostichus mpt (2) from Fall native
grass.

Uth. 11 + 2397 = 2408.

Uth. in. ♂. 3 + 162 = 165

✓ 1955: 124 . 5 m. S. of Royal Valley,
Marathon Co., Texas. Elev. (am.) 1350 ft.
VIII. 24, 1955: (R.).

Largely native corn, much wheat high -
with joint cactus, prickly pear and
numerous low yuccas.

All cogn. taken ex c. 1 ad. Polioptila.

Bremusia 1 ♀ nupt.

Litanentria 3 juvs. nupt.

Meiophanes 3 ♂ nupt.

Pseudoceryle juvs. nupt.

Syrnium 1 ♀ taken.

Dichromophia 1 taken.

Melanerpes sp. 1 juv.

Empidonax m. juvs. taken.

Ardea 1 ♀ nupt.

Birth. 17 + 2408 = 2425.

Altitude. 0 + 165 = 165.

✓ 1955: 125 4 ms. S S E. of Cherry Springs,
Gillespie Co., Texas. Elev. (am.) 2000 ft.
VIII. 24, 1955 (R.)

Area of partially native corn, with
yucca, prickly pear, etc., but penetrated
by sandpiper, etc. Almost no Q. except

pharmids.

Pseudomyia both sexes, note color pattern of ♀ & ♂ here.

Diapheromera both sexes, ♀ & ♂ not quite adult.

Paraidemona 1 spec. - Taken.

Uranotaenia 1 spec.

Orth. 19 $+ 2425 = 2444$.

Orth. no. 0 $+ 165 = 165$.

1955:126 3 mi. E. of Fredericksburg,
Gillespie Co., Texas. Elev. (am.) 1450 feet
VIII. 25. 1955. (R.)

Very little - everything recognizable taken ex 1 Meris. Gist.
Roadside - short - med. high grass - much
sandspr.

Synaldis, a few.

Agonotettix - 1 taken

Upeia - juvs. only.

Orth. 10 $+ 2444 = 2454$.

Orth. no. 0 $+ 165 = 165$.

1955. 127 1 m. E. of Hye, Blanco Co., Texas.
Elev. (an.) 1260 ft. VIII. 25, 1955. (R.)
Dry little. Everything recogn. taken exc.
1 *Schistocerca*.

Roadside. grass and bare spots on limestone.
Syrphula juv. only seen.
Opis juv. only.

Trinervus set by *Spharagnum* on almost
bare limestone grit.

Uca ^{*Schistocerca*} ~~crust.~~ 1 juv. taken

Orth. 5 + 2454 = 2459.

Orth. in. 0 + 165 = 165.

1955. 128 Hills 4.5 ms. S. of Johnson
City, Blanco Co., Texas. Elev. (an.) 1210
ft. VIII. 25, 1955. (R.)

Limestone surface with open stand
of native vegetation. Everything recogn.

taken.

Pseudoceryle both sexes, juv.

Syrphula western sp. 1 ♂, 1 ♀ taken.

Psolocora 1 very small juv.

Chortophaga 1 taken.

Trinervus pallid. 1 taken

" *vir*-legged. 1 ♂, 1 ♀ taken.

Platylactista 1 taken

Paraidemona 1 ♀ Taken.

Cycloptilum ov. rupt.

Ucanthus 1 rupt.

Usth. 19 + 2459 = 2478.

Uster no. 0 + 165 = 165.

↓ 1955:129 3 ms. S.E. of Blanco, Blanco
Co., Texas. Elev. (av.) 1075 feet. VIII.25.1955. (R.)

Grassy roadside. Everything recognizable.

Taken etc. 1 far flying Schistocerca.

Pseudomyle juv. only.

Synchlora ^{ad.} juv.

Conceptrophi 1 Taken.

Spharagemon 1 Taken, another seen.

Schistocerca 1 juv. Taken.

Hesperotettix viridis type 1 ♀ Taken, ^{all seen.}

Cycloptilum 1 rupt.

Ucanthus rupt.

Usth. 16 + 2478 = 2494.

Uster no. 1 + 165 = 166.

✓ 1955. 130 8 ms. S.E. of Blanco, Blanco Co., Tex.

Elev. (an.) 900 ft. VIII. 25, 1955. (R.)

Native grass and taller corn on limestone. Everything recognizable taken.

Blaesoxipha ♂ ad. & juv. in grass.

Syrphula few.

Anthomyia juv. only, none.

Mesochorus 1 juv. taken

Hemiteles 1 on pr., all seen.

Aspilota 1 ♀ none.

(Melampus sp. (H. W.)
1 ♂ taken.)

Conocryptus juv. only.

Counts 13 + 2494 = 2507

Other ins. 0 + 166 = 166.

✓ 1955. 131 4 ms. S.E. of Fischer, Comal Co., Tex.

Elev. (an.) 900 ft. VIII. 25, 1955. (R.)

Native corn with much ^{low} guava.

Everything recognizable taken.

Pseudomyia and Blaesoxipha,
numerous males, no adult ♀♀ seen.

Syrphula 1 juv. taken.

Mesochorus juv. only.

Hemiteles 1 taken, all seen.

Ichneumon 1 juv. taken.

Aspilota 1 ♂ none.

Cyrtopogon a few swept.

Orth. $28 + 2507 = 2535$.

Other ins. $0 + 166 = 166$.

1955. 132 11 mo. W. of San Marcos,
Hays Co., Texas. Elev. (an.) 650 ft. VIII. 25, 1955.
(R.)

Roadside short grass with some taller
brush grass. Everything except Mermiria
taken.

Pseudocermyx juvs. only

Syrphula juvs.

Microchloa sp. adults.

Orth. $7 + 2535 = 2542$.

Other ins. $0 + 166 = 166$.

↓ 1955. 133 4 mo. W. of San Marcos,
Hays Co., Texas. Elev. (an.) 600 ft. VIII. 25, 1955.
(R.)

Native corn of tall grass and shrubbery.
Exc. for 1 Mermiria nymph. nymph. was
taken.

Pseudocermyx & Chrysomelidae ♂♂
numerous, particularly the latter, ♀♀
not adult as yet.

Stagmomantis juvs. Taken.

Chrysomelidae sp. juvs. swept.

Syrphula adults.

Paraidemona 1 taken.

Melanoplus robustus? high male in
heaviest corn.

Melanoplus h. w. both sexes - local.

Anthonomus 1 ♀ nupt.

Oecanthus nupt.

Orth. $35 + 2542 = 2577$.

Other ins. $0 + 166 = 166$.

1955.134 16 ms. NE. of San Marcos,
Caldwell Co., Texas. Elev. (check!)
VIII. 26, 1955. (R.). Ca. 560 ft.

Roadside tall grass - rank weeds.

Nothing seen exc. what was taken.

Juv. phasmid.

" Stagnomantis

Campylodes 1 ♂.

Orth. $3 + 2577 = 2580$.

Other ins. $1 + 166 = 167$.

1955.135 6 ms. WSW. of Cedar Creek ^{spring}
Bastrop Co., Texas. Elev. (check!) Ca. ~~400 ft.~~
VIII. 26, 1955. (R.)

Area of shrubs, grass - low weeds, surrounded
by mixed low woods.

Everything recognized taken.

Pseudoceryle 1 ♀ impt.

Syrhula Common. Urophylloides 2 ad. - juvs.
Boopisodon 1 ♂ taken.

Aephia a number from taken.

Chortophaga - 1 taken.
Enicophthirus a single one taken.

Melanophus th. w. sp. 1 ♂ taken.

" juvs. spp.?

Paraidemna 1 taken.

Anthona 1 ♂ impt.

Conorophalus 1 ♂ impt.

Orth. 28 + 280 = 2608.

Orth. ins. 0 + 167 = 167.

↓
1955. 136 6 ms. NE. of Cedar Creek.
Bastrop Co., Texas. Elev. (about)
VIII. 26. 1955. (R.) Water tall grass + shrubbery
with oak scrub, along with tall grass
Edge of open pine woods (approx. 200 yds)
long leaf) in grass and other low cover.
Oak forest, Everything recognizable.
Everything recognizable. Taken etc. 1 Aephia.
Pseudoceryle 1 ♀ juvs.

Syrhula common.

Ameltopsidea very small juvs.

Porosia very small juvs.

Agrostotellus 1 taken.

Chortophaga not taken.

Pharagemon 1 on lower ground.

1955: 136 (cont.)

Melanophus th. w. sp.
Schistura 1 juv. 1 ad. 5 imm. juvs.

Arctura 1 ♀ rupt.

Ceanothus 1 rupt

Orth. $29 + 2608 = 2636$.

Other in. $0 + 167 = 167$.

1955: 137 2 mo. N.E. of Bastrop, Bastrop
Co., Texas. Elev. ^{ca. 550 ft.} ~~chick~~. VIII. 26. 1955. (R.)

Edge of open pine woods (appar. not
true leaf pine), in grass and other
low com. Everything recogn. taken exc.

1 Arctura.

Pseudoceryle 1 ♂ - 1 juv.

Heptatherina 1 ♀.

Chrysophaga 1 taken.

Orth. $5 + 2636 = 2641$.

Other in. $0 + 167 = 167$.

1955: 138 Manheim, Lee Co., Texas.
Elevation ~~chick~~. VIII. 26. 1955. (R.)

In grass and low com under open
old woods. Everything recogn. taken.

Heptatherina 1 ♂ Taken.

Pseudoceryle juvs. taken.

Syrphula numerosus.

Mercuria a few.

Crematogaster 1 juv. taken.

Cyphodactylus ad. - 1 juv. taken.

Hippodamia one seen - taken.

Melanophus the w. with several ad. - juv.

taken - local.

Melanophus long-w. a single ♀ seen -
taken. No male could
be located.

Uth. 26 + 2641 = 2667.

Uth. ins. 0 + 167 = 167.

1955. 139 5 ms. NE. of Old Mine Box,
Burlison Co., Texas. ~~Station?~~ VIII. 26, 1955.
(R.)

Old field with much tall grass and dry
drain with ^{very} rank grass. Everything
mown. Taken etc. Mercuria.

Brumelia 1 ad ♀ + 1 juv. ♀. (not in
drain grass!)

Syrphula ad. & juv.

Melanophus juv.

Neonophthalmus 1 ♀ (not in drain grass)

Uth. 6 + 2667 = 2673.

Uth. ins. 0 + 167 = 167.

✓

1955. 140 6.5 ms. NE. of Bryan, Brazos
Co., Texas. ~~Exs.~~ VIII. 27, 1955. (R.)

Roadside in oak woods area, also dry
drain with much tall grass - then area
mowed. Everything recognized. taken exc. 1
Aphid.

Bumelia 1 ♀ ad. impt.

Syrphula imm. ad. - juv.

Mormia very few.

Hippisus a few, one taken.

Melanophus th-w. a few. 1 taken.

" diff. 1 taken, all seen.

" whites? 1 ♀, in heavy tangle.

Anthracoceros 1 ♂ impt.

Uromyphalus 1 juv.

Orth. 11 + 2673 = 2684.

Other ins. 4 + 167 = 171.

✓ 1955. 141 5.5 ms. NE. of Madisonville,
Madison Co., Texas. ~~Exs.~~ VIII. 27, 1955 (R.)

Short grass with scattered bunch grass under
open stand of oak. Everything recognized
taken.

Stagmomantis 1 juv. taken
Wingspan 1 ♂ all taken.
Pseudomyle num. no y & p adult.

Syrphula num. ad. - juv.

Cephus a few, adults - juv.

Meacham in low corn, a few.

Chortophaga 1 taken

Trachyphala 1 juv. taken.

Hesperis both sexes taken.

Campylacanthus 1 juv. taken.

Melanophus l. w. 1 ♂ taken

" h. w. locally common, but
only in a very small area of
tangled corn.

Orth. 55 + 2684 = 2739.

Orth. ins. 0 + 171 = 171.

↓ 1955 142 1 m. NE of Sand Ridge,
Houston Co., Texas. Aug. VIII. 27. 1955. (R.)

Road mowed grass along old field.
Virtually nothing, everything very taken.

Syrphula a few.

Cephus ad. - juv.

Orth. 11 + 2739 = 2750.

Orth. ins. 0 + 171 = 171

J 1955. 143 Antonio, Houston Co., Texas.

~~Exam~~ VIII. 27. 1955. (R.)

Roadside park. grass and shrubbery of various sorts under open stand of oaks.

Very poor. Nothing recognizable other than forms taken.

Pseudoceryle 1 ♂.

Elaphomera 2 juvs.

Synchlora num., ad.: juvs.

Elaphidella ad.: juvs.

Neorhamphus 1 juv. Taken.

Orth. 13 + 2750 = 2763.

Orth. vis. 0 + 171 = 171.

J 1955. 144 1.5 ms. N. of Lathrop, Houston Co., Texas. Elev. 400 ft. VIII. 27. 1955. (R.)

Roadside grass and weeds, tall grass. Short grass. some hardpan, also dry sandy drain.

Elaphomera 1 juv. ♀.

Synchlora a few

Agrotis 1 Taken.

Hippocampus 1 of no. taken.

Chortophaga 1 taken.

Elaphidella juvs. only.

Trachyrhachis tw. ads. - 1 juv. in drain, other
seen by foot.

Conusphalus 1 ♂ taken.

Uca 1 imp.

Orth. 16 + 2763 = 2779.

Orth. in. 0 + 171 = 171.

↓ 1905.145 4 ms. N. of Grapeland,
Houston Co, Texas. Elev. 500 ft.
VII. 27. 1905. (R.)

Old field, grown up in tall grass and
many kinds of weeds, Everything recognizable.
Taken. Crinoid

Syrphula - western species - 1 female.

Chrysomelid ad. ♂ & ♀.

Pseudoscorpion tw. ♂ only.

Campylodactylus 1 female ad. - juv.

Melanophus C. w. sp. Numerous.

" " C. w. sp. In fair nos. - local.

Uca 1 imp.

Orth. 26 + 2779 = 2805.

Orth. in. 1 + 171 = 172.

✓ 1955.146 3.8 mo. N. of Atlanta, Cass Co., Texas.

Elev. ca. 350 ft. VIII. 28. 1955. (R.).

In interval of rains. Broad hollow
with both short grass (partly mowed) and
tall grass, and weeds. Everything
mown. Taken exc. Cuphea - ad. Schistocerca.
Brumma 2 ♀♀ mpt.

Syrphula abundant.

Chrysobothris 1 Taken.

Agrotis 1 Taken.

Melanoplus l. w. sp. 1 ♂ 1 ♀, others noted.

Oenanthus h. w. sp. 1 ♂ Taken.

Orth. 17 + 2805 = 2822.

Other ins. 0 + 172 = 172.

✓ 1955.147 6 mo. E. of Texarkana, Miller Co.,
Arkansas. Elev. ca. 350 ft. VIII. 29. 1955. (R.).

Tall grass and weeds, but native corn,
along edge of mixed woods, on red clay.

Everything mown. Taken exc. Cuphea.

Syrphula a few.

Melanoplus h. w. in
a variety of spots.

Amblycorypha 1 ♀ mpt.

Brumma 2 ad. - 3 juv. ♀♀
Taken in tall rank grass, a weed;
Diapheromera juv.

Orth. 14 + 2822 = 2836.

Other ins. 0 + 172 = 172

✓ 1955. 148 6 ms. E of Garland, Lafayette
Co., Arkansas. Elev. ca. 230 ft. V.H. 29. 1955.
(R.)

⊗ Roadside rank weeds and grasses
and border vegetation of dense mixed
woods. Everything recognizable taken exc.
Aphid. Rain threatening momentarily.

Chiaephumma 2 ♂ - 1 juv. ♀.

Brumma 1 ad. ♀. Taken.

Syrphula a few.

Cephallota 1 juv. Taken.

Melanophora L.W. 1 ♀ Taken.

Campylacantha 1 ♀ Taken.

Aeshnina juv. 1 Taken.

Conophanes juv. several Taken.

Orth. 12 + 2836 = 2848.

Other ins. 0 + 172 = 172.

1955.149 5 ms. ^{SE.} S.E. of Linwood
Jefferson Co., Arkansas. ^{Ca. 180 ft.} VIII. 30, 1955. (R.)

Flats along Arkansas River roadside.
Everything wet and little work could be attempted,
and almost nothing would move. Work
attempted in roadside grass and weeds
and old field. Everything recognized taken.

Hippiscus sp. taken, others seen.

Conocéphalus fasc. 2 ads. taken, imm. juvs. seen.
Arch. $4 + 2848 = 2852$.

Other ins. $0 + 172 = 172$

1955.150 3 ms. S.E. of Gould, Hecha Co.,
Arkansas. ^{Ca. 160 ft.} VIII. 30, 1955. (R.).

Low bottomland grown up in various
weeds & tall grasses. Everything recog.
taken exc. Hippiscus.

Tettigidea ads & juvs. in better spots.

Elischromorpha both sexes taken.

Syrphula 1 ad. taken.

Melanophus fuscus-rufus - a few.

Parnyia hooeii 1 ♀ - no more seen.

Archelimum vulgare 1 ♀.

" negipes 1 ♂ taken.

" lybaticum? Both sexes taken.

Ctenophorus fasc. a number.

" striatus abund.

Urb. 44 + 2852 = 2896.

Urban ins 0 + 172 = 172.

✓ 1955.151 7.5 ms. S. of Mc Gehee, Chicot
Co., Arkansas. ^{ca. 50 ft.} Vill. 30, 1955. (R.)

Roadside with heavy grass and water ^{pool}
of other character, with standing shallow
water along hard wood forest largely
in water. Everything noticed taken.

Tetrigidea numerous, ad. & juv.

Chironomus sp. taken.

Hippisus one on drier section.

Ctenoph. fasc. numerous.

" striatus sp. taken.

Pygmaea in deep grass.

Urb. 28 + 2896 = 2924

Urban ins. 0 + 172 = 172.

✓ near Valley Hill School.

1955.152 9 ms. E. of Grumwood, in
Carroll Co., Miss. Elev. 170 ft. VIII. 31, 1955. (R.)

On top of ~~wooded~~ western border of bluffs.
Everything recognizable. Taken. In tall grass and
woods and in low grass.

Brumma in all situations. Adults - jins
in two instars. Note the one brown jins!

Syrphula 1 Taken.

Mermia 1 ♀ Taken, all over.

Melanophus 1 jins.

Chalcidius 1 ♂.

Uth. 14 + 2924 = 2938.

Uth. vis. 0 + 172 = 172.

✓ 1955.153 2 ms. S.E. of Carrollton, Carroll Co. ~~Miss.~~
Miss. VIII. 31, 1955. (R.)

Narrow roadside border and in heavy
mixed oak - pine woods on rolling
hills.

Brumma roadside in mixed grass & woods.

Diapheromera in woods. ♂ with requested
four legs. ♀♀ all jins.

Spharagmus & Chalcidius. Melan. in low woods
com.

Cynoph. stritua roadside pass.

Uoth. 10 + 2938 = 2948.

Ueth. inc. 0 + 172 = 172.

1955.154 7.5 ms. E. of Winona, Montgomery
Co., Miss. VIII.31.1955. (R.)

Undergr. in pine woods and roadside
muds and tall grasses. Exanth. ungn.
Tah. ~~inc. Phost. ungn.~~

Andlytropidia juv. in woods undergr.

Synula 1 Tah. roadside.

Chortophaga roadside. ^{Urophidella 1 juv. roadside.}

Happiscus 1 roadside.

Melanophus juv. roadside.

Schistocerca juv. roadside.

Neurobis 1 juv. in woods undergr.

Uoth. 8 + 2948 = 2956.

Ueth. inc. 0 + 172 = 172.

1955.155 2 ms. E. of Mathiston,
Attitash Co., Miss. VIII.31.1955. (R.)

In ground corn of round-grain mixed,
but chiefly oak, woods, and in roadside
short grass, tall grass - some woods.

1955: 155 (cont.).

Everything recogn. Taken.

Brunneria, roadside.

Chrysomela ♀ juv. in woods.

Lybula roadside. — Metastelma 1 juv roadside pass.

Anthytrix juv. num. in woods.

Melanophus juv. roadside.

^ mus. 1 ♂ roadside.

Campylorhiza 1 ♂, roadside.

Adiantum 1 ♂ in roadside forest pass.

Alt. 18 + 2956 = 2974.

Alt. inc. 1 + 172 = 173.

✓

1955: 156 12 ms. E. of Mathiston, Uktitah
Co., Miss. VIII. 31, 1955. (R.)

Ground cover of mixed woods (mainly
oak), and in roadside + ditch with
grasses and weeds.

Everything recogn. Taken. Nothing at
all in woods.

Tettigidea numerous in one type roadside
area (a dried-up damp spot).

Neotoma 1 near same area but much denser

Cryptus ad. + juv.

Lybula a number.

Metastelma several juv.

Chortophaga 2 very sm. juvs. taken.
Asphid 1 taken.

Hippiscus a pair taken.

Melanoplus mex. 1 ♂.

Campylacantha 1 ♀ taken.

Turdus 1 ♂ tall under.

Odontoxiphidium 1 ♂ roadside.

Ultr. 29 + 2974 = 3003.

Ultr. vis. 1 + 173 = 174.

1955. 157 8 ms. W. of Columbus,
Lowndes Co., Miss. VIII. 31, 1955. (R.)

Very heavy, ^{high} dense roadside tangles
of rank grasses and trailing mimosa-like
vines - a tangle of the toughest character.

Everything except taken etc. & sch. amer.

Asphidella 1 taken.

Chortophaga rural.

Conophidius stritus 1 ♂, 1 ♀.

" fasc. number.

Ultr. 9 + 3003 = 3012

Ultr. vis. 0 + 174 = 174

1955.158 4 ms. E. of Mississippi line,
Pickens Co., Ala. IX.1.1955. (R.)

Old field conditions, roadside -
border of mixed woods. Everything
recogn. taken exc. ad. Schist. amer.

Neppicus 1♂, 1♀. taken.

Trimerotrop. citrinus one on road gravel, all
Schist. amer. juv.

Melanoplus fuscus-rufus } Anthropodidae: juv.
" Aptanis } In same old field
condition

" No. w. one along work edge.

Neomorph. 1 juv. in weeds.

Oenanthus imp.

Utah. $14 + 3012 = 3026.$

Other no. $3 + 174 = 177.$

1955.159 4 ms. SE. of Ethelsville, Pickens Co.,
Ala. IX.1.1955. (R.)

In very tall grass and weeds. Very little,
all taken recogn. exc. ad. Schist. amer.

Bumelia in grass-weeds. (see on)

Neotethis on bare soil.

Syrphula, a few.

Anthropodidae: juv.

Schistocerca amer. juv.

Melanoplus furu-rubrum few.

" short-wing. 8 taken, all m.

Adontoxiphidium 1♀ in shorter grass.

With. + =

Other ins. 1 + =

Melanoplus mex. a few.

Quamptus 1 mpt.

With. 4 + 3026 = 3030.

Other ins 0 + 177 = 177.

✓

1955-160. 1 m. W. of Reform, Pickens
Co., Ala. IX. 1. 1955. (R.)

Roadside + cut-over pine land. Everything
recogn. taken except ad. Ich. amer.

Brunnaria in grass - native cane in
grown-up cut-over pine land.

Neotettix on large oak

Syrphula, a number.

Embleptopis juv. common.

Ich. amer. juv.

Melanoplus fuscicornis few

" Th. w. ♂ taken all over.

Adontophidius 1 ♀ in shorter grass.

Orth. 12 + 3030 = 3042.

Other ins. 1 + 177 = 178.

✓ 1955-161 4 ms. E & E. of Gordo, Pickens
Co., Ala. IX. 1. 1955. (R.)

Roadside park, under open pine-oak
woods. Work done there and in adjacent
old field conditions. Everything recogn.

taken ex. ad. Ich. amer. & ad. Pseudoceryx.

Brunnaria 1 in old field sand.

Syrphula almost formal.

Therminia 1 ♂, all over.

Cryptulabla, a few.

Amelhytropidea juv. 1 taken

Argemone a few, 2 taken

Hippocampus ditto, 1 taken.

Schistocerca amer juv. taken, var.

wh. phase.

" clavifera 1 ♂ taken, all recogn.

Campylacanthus 1 ♂ ad. taken.

~~Stel~~ Conophalus tristis 1 ♂ taken.

Arth. 28 + 3042 = 3070.

Arth. 2nd. 0 + 178 = 178.

↓
1955.162 5 ms. SE. of Tuscaloosa,
Tuscaloosa Co., Ala. ^{elev. 300 ft.} 1 X. 1. 1955. (R.)

Edge of mixed woods with low
original ground cover undisturbed in
spots. Everything recogn. taken.

Neotettix on clayey or gravelly ground,
generally bare, otherwise with thin blanket
of lichens(?).

Neotettix, same situation.

Urophylloides 1 juv. taken.

Amelhytropidea, a number of juv.

Chortophaga 1 ad. + 1 juv. taken.

Schistocerca amer. 1 femoral defect taken.

1955-162 (cont.)

Melanophus formicivorus max. 1 ♂ taken.
Turdus 1 ♂ taken, numerous
others seen.

Neocoryphus 1 juv. nupt.

Count. $24 + 3070 = 3094$.

Other inv. $1 + 178 = 179$.

✓ 1955-163 3/4 m. SE. of Pearson, Bibb Co.,
Ala. 12.1.1955. (R.) 6.330 H. [Pearson is just on
Tusculum Co. line]

Old field conditions along roadway and
RR. right of way. Everything recognizable. Taken!

Neotoma 1 taken.

Ceryle 1 taken.

Amphispiza juv. 1 taken.

Mimus 1 ♀, all seen.

Melanophus max. numerous.

Corvus cor. 1 taken.

Neocoryphus 1 juv.

Urethra nupt.

Count. $14 + 3094 = 3108$.

Other inv. $1 + 179 = 180$.

1955. 164 3 ms. NE. of Centerville, Bibb
Co., Ala. 1X. 2. 1955. (SANNY) (R.)

Roadside and border of, and within, mixed
woods.

? Radiolatum - like juv. a few in woods
low comm.

Syrnola numerosa.

Certhia alba ^{unsp} edge - roadside.

Amblytropidia juv. num. wood-edge & in
woods.

Chortophaga 1 juv. roadside.

Geopelia 1 juv. roadside.

Chrysomitris 1 roadside - other seen.

Melanerpes sp. roadside

" th. w. 1 ad. & 1 juv. in woods.

Geothlypis trichas 1 sp. ^{at woods border} ~~on roadside~~

~~can of native plants~~ in oak scrub comm.

Orth. 24 + 3108 = 3132.

Orth. vis. 0 + 180 = 180.

1955. 165 2 ms. ENE. of Calera,
Shelby Co., Ala. Elev. ca. 540 ft.

1X. 2. 1955. (R.)

Roadside, edge of mixed woods (oak
& pine) and within latter.

1955. 165 (cont.)

Anthytropidia juv. in both woods and
along edge of same.

Chortophaga 1 juv. roadside.

Melanophus mex. roadside.

" Ph. w. in woods, by 1 juv.

Conocophalus stratus 10 roadside.

Odontopholidium 10 in woods only.

Neomorph. 1 juv. roadside tall grass

Urth. 16 + 3132 = 3148.

Urth. ins. 0 + 180 = 180.

↓
1955. 166. Near Wilsonville, 8 ms. NE. of
Columbiana, Shelby Co., Ala. Elev. ca. 420 ft.
IX. 2. 1955. (R.)

Roadside and unimproved railroad
right of way. Everything recognizable taken.

Burmannia in tall weeds - all seen.

Urophidella juv. only taken.

Hippisus 1 taken, sev. seen.

Schist. amer. 1 taken, 6 or more seen.

Melanophus mex. abund.

Neomorph. 1 juv. taken.

Oreanthus mpt.

Urth. 10 + 3148 = 3158.

Urth. mex. 3 + 180 = 183.

1955.167 8.5 ms. NNE. of Vincent,
St. Clair Co., Ala. Elev. ca. 480 ft. IX. 2. 1955 (R)
Roadside tall weeds and grass + border
of, and within, mixed woods. Very
little.

Amphispiza juv. in or on border
of woods.

Hesperotettix virgatus. 1 ♀ in corner
near along wood edge.

Scolecophagus rupestris in tall weeds
roadside - flying into woods.

Count. 8 + 3158 = 3166.

Other inv. 0 + 183 = 183,

↓
1955.168 Hills 10 ms. SW. of Asheville,
St. Clair Co., Ala. Elev. ca. 700 ft.
IX. 2. 1955. (R.)

Edge of woods - largely pine - and
roadside.

Amphispiza juv. under edge.

Hylocichla ustulata.

Geothlypis trichas.

Melanerpes formicivorus roadside.

" th. w. 1 juv. woods.

" lucida 1 ♀ woods.

1955.168 (cont.)

$$\text{List. 11} + 3162 = 3173.$$

$$\text{Other vis. 0} + 183 = 183.$$

Total for season.

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MR. & MRS. CHAS. CARO

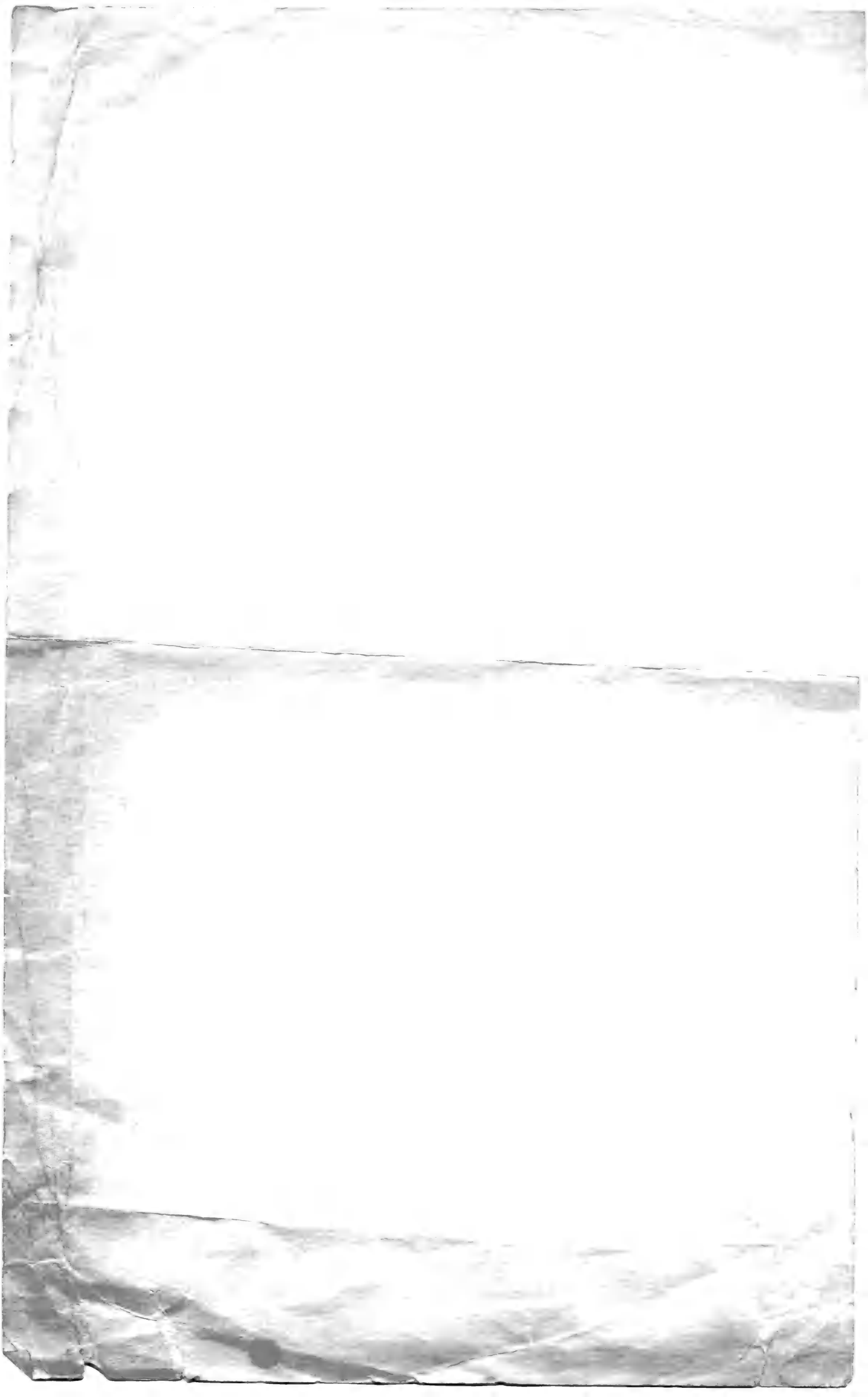
MARTIN MOTEL

ROLLA, MISSOURI

PHONE 277

No. of stations listed by states:Spinning

So. Dakota.	XXII	7	(166)
No. Dakota	XXIII	8	(287)
Montana	XXIX XXII XXII XXII XXII XXXIII	29	(906)
Idaho	XXII XXII XXII	15	(578)
Nevada.	XXIX XXII XXII XXII XXII XXXIII	29	⁵⁷ 28
Cal.	XXII XXII XXXIII	18	(148)
Utah.	I	1	76 (112)
Arizona.	XXII XXII XXII XXII XXII XXII XXII XXII XXII XXII XXII XXII XXII XXII	70	(1)
N.M.	XXII XXII XXII XXII	20	(296)
Tex.	XXII XXII I	11	377
Okla.	XXII XXII I	11	(272)
			(24)



1956 1 9 ms N of Yankton, Yankton Co,
So. Dakota. ^{OK.} VIII. 1, 1956. (R) Elev. an
1250 ft (set at 1200 at Yankton) so correct
later. Spitting mist.

Roadside weeds of various species bordering
a corn field. Very little O. Agnostotettix or.
adults on ground, ^{lots low corn} Mel sp. all juvs. Acronycta
adults swept.

Catch. $6 + 0 = 6$

Other ins $4 + 0 = 4$

1956 2 1.5 ms. S. of Stanley Corners, E. of
Bridgewater, McCook Co, So. Dakota.
VIII. 1, 1956. (R) Elev 1400 on Yankton river
[see above].
Unicast. Few things adult. Everything in
roadside dry ditch of weeds of var. kinds
incl. withered. Mel juvs. numerous.

Chorthippus, a single ♂, all seen.

Cephus 1 ad. - 1 juv. Taken

Mel fuscus-rubrum 1 ad? taken.

Conoceph strictus num chiefly juvs

" fasc. 1 ♂ taken.

Nematus 1 juv Taken.

Catch. $20 + 6 = 26$.

Other ins $10 + 4 = 14$.

1956.3 2 ms SE. of Forestburg, Sanborn
Co., So. Dakota. VIII. 1, 1956 (R.) Elev. 1200 ft
on Yankton basis (see above) Sky dull
sandy roadside spot with some native
com. All O. seen taken Few adults.

Pseudopomala 1 ♀ taken, all seen, appar. in
tall grass, prob. Andropogon Aquiletothrix
one app. on ground. Clypeulella few, 2 taken.

Opeia 2 adults taken. Mel. sp. all juv

Eritethis 1 sm. juv. taken Arphia 2 juvs.

taken Appar. 1 juv. Chortophaga

Cnecrophalus altans? a few.

$$\text{Orth} \quad 18 + 26 = 44.$$

$$\text{Orth in} \quad 1 + 14 = 15$$

1956 4 8.5 ms. W. of Huron, Beadle Co.,
So. Dakota. VIII. 1, 1956 (R.) Elev.

1300 ft. on Yankton basis (see preceding).

Roadside weeds + grasses little O. ^R Sky dull.
adult. All species recognized taken.

Clypeulella 1 adult taken.

Mel f. - rubrum 1 pr. taken.

~~Cnecro~~ Neconocroph sp. 1 juv. swept.

$$\text{Orth} \quad 4 + 44 = 48$$

$$\text{Orth in.} \quad 3 + 15 = 18$$

1956 5 Spottawood, Spink Co., So. Dakota. VIII.1. 1956.
(C.B.) Elev 1300 on granite bars - in prairie

A small patch of apparently undisturbed
prairie com of varied vegetation, ungrazed.

Many species of C. recognized was taken

Mimivra mac. mclungii 2 ♂, 2 ♀, all seen taken

Apeira a number. All ad.

Clypeobella a number. all ad.

Aeropedellus a single ♂ taken

Agonotettix a few.

Aupha typnata 1 ad - all seen.

Trachyrhachis 1 ♂, 1 ♀, all seen, on fr.

Mel. davsoni 1 ad. ♂ all seen

" sp. 1 ad. + juv.

Phaenobothrus no juvs. only.

Conocryptus pubescens ad. + juv.

Acronyctus 1 juv.

With 37 + 48 = 85

Other no. 5 + 18 = 23

1956.6 Betr. Gutna and Bowdle,
Edmunds Co, So. Dakota VIII 2, 1956. (R.)

Elev (on Yankton basis) 2300 ft. - prob quite
the high.

Overcast with fog + light rain.

In ungrazed and undisturbed Great
Plains conditions on rolling low hills. Com
with thistle, white sage + var. grasses.

Very little moving or prodding to stir up

Acephala 1 juv swept.

Phaenocarpa 2 juv. in tall grass.

Mel. fuscus-rufus 1 ♂ taken.

Hypochlora alba in white sage only

Cynoph 1 ♀ all taken

Acanthus 1 ♀ " "

Uth. 9 + 85 = 94

Uth. inv 0 + 23 = 23

1956.7 7 mi. S. of Mound City, Campbell Co.,
So Dakota VIII 2, 1956. (R) Elev

(on Yankton basis) 1900 ft. Overcast + rain

Great Plains scrub condition, all shrub.
with some scattered intrusions of alfalfa.

Soil very damp Much tall grass. No white sage.

Acephala very numerous a mod. act.

Chorthippus a number, appar. more limited
to the tall grass

Phaenocarpa 1 juv swept.

Mel. fuscus-rufus Numerous.

" var. spp. juv

1956.7 (cont)

Chelimum sp 1♀ All noticed

Cnecophalus saltans? Both sexes & juvs.

A number

Cnecoph. - fasc. ditto

Neurobius 1 juv.

Acanthus sev. swept.

Orth. 72 + 94 = 166.

Other in 1 + 24 = 25.

1956 8 2 ms. SE of Hull, Emmons Co,
No. Dakota. VIII. 2, 1956. (R) Elev. (on
Yankton trail) 2100 ft.

Short grass Plains condition on gently
rolling surface with patches of taller growth,
the latter chiefly sunflower. Very little
white sage. All species recognized were
taken.

Overcast & threatening, ^{rain} momentarily.

Cepia numerous, in shorter grass. Few juvs.

Aerodillus 1♀ swept.

Asphidella not num. 1 ♂ taken

Phytolites juvs. only.

Hypochlora very few in white sage. 1 ♂ 1 ♀ taken.

Met. dawsoni Numerous, general. All ads.

Cnecophalus saltans Abundant Almost
all ads. general.

Oecanthus A few kept

Orth. 59 + 166 = 225

Orth. no. 2 + 25 = 27.

1956 9 4 mo N of Hinton, Emmons Co.,

Nebraska VIII. 2, 1956 (R.) Elev. (on

Yankton series) 2150 ft. Overcast, with

rain all about.

Great Plain herbaceous rolling hills, but
with more weeds - tall grass than usual.

A little white sage. Everything recognizable taken.

Opeia very few, ♂ - ♀ taken.

Mel. femur-rubrum 1 ♂ taken

" sp. juv. of sp. ? species taken.

Phortalistes 1 ad. + 3 juv. taken

Hypochlora alba. A number in white sage

Enocyp. fax. 1 ♂ taken.

" salturnus ? ad. + juv.

Orth. 29 + 225 = 254,

Orth. no. 17 + 27 = 44.

1956 10 25 mo W. of Mandan, Morton Co,
No. Dakota VIII. 3. 1956. (R.) Elev (an ex
Bismarck check) 1700 ft.

In Missouri - Heart River bottomlands.

Roadside grass with alfalfa tufts.

Chortippus very few seen, 2 taken.

Mel. f. r. - mix. numerous, large no. of
jims.

Mel. dawsoni 1 ♀ taken, all noticed.

Acyrtus pseudonitens 1 taken, all seen.

Phaenocarpa jims. only, few.

Conocrypta fasc. 1 taken

" latrans? a number, many jims.

Neurochus fasc. type 1 taken.

Utah. $29 + 254 = 283$

Utah ins. $1 + 44 = 45$

1956. 11 2 mo. NW. of Sweetwater, Morton
Co., No. Dakota VIII. 3. 1956. (R.).

Elev. (an.) 2075 ft.

Great Plains cond. with native vegetation,
and some spots with broken stone on
rolling hills.

Acropodanthus 1 ♀ swept, all seen.

Mel. all largely jims. Adults taken of
fem. - robustus - terminal pachardi.

Heathy lotum one considerable colony on
bare spots, with sparse cover, adults &
juvs. in last stage.

Phaenocarpa juvs. only.

Hypochloa small taken, no other seen.

Agrostotellix a number, in bare cover,
appar. on fr.

Conocoryphus salinae? Mostly juvs. a small
number of adults taken.

Colth. $47 + 286 = 333$.

Other ins. $1 + 45 = 46$.

1956. 12 9.5 mi. W. of New Salem,
Morton Co., No. Dakota. VIII. 3. 1956. (R.).
Elev. (am.) 2200 ft.

Rolling surface with Great Plains
vegetation - cone flower, white sage, Rudbeckia,
other plants - grasses. Much done also
in roadside drain with tall grass & weeds.
Chorthippus only in drain.

Mermis marul. Single ♀ in taller clumps
of plains vegt. All seen.

Opis juv. in ^{thinner cover} dense vegetation, ade & juvs.

Phaenocarpa juvs. only. In taller grass.

1956.12 (cont.).

Melanoplus dawseni local, few or so taken,
in lower com.

Mel. livittatus 14 in tall clump.

" f. - 2. gumal.

" sp. juv.

Cremoph. fasc. a few.

" altans none seen.

Orth. $47 + 333 = 380$.

Orth. ins. $1 + 46 = 47$

1956.13 6 mi. W. of Glen Ullin, Morton Co.,

No. Dakota. VIII. 3. 1956. (R.). Elev. (am) 2200 ft.

Grassy area in broad flat bottom land
rolling hills. Com. largely a Spartina-like
grass, some Juniperus & many other weeds.

All species recog. taken exc. 1 Chrysomitris
carolina.

Oryzopsis num. - very dark in color.

Opis a few.

Mel. packardii a few adults, mostly
femal.

Mel. mex. a few.

" f. - 2. num.

Phoebastria a few adults of both sexes &
some juv.

Cremoph. altans num.

$$\text{Orth. } 44 + 380 = 424.$$

$$\text{Other vis. } 1 + 47 = 48$$

1956.14 1 m. N. of South Heart,

Stark Co., No. Dakota. VIII. 3. 1956. (R.)

Elev. 2500 feet.

Great Plains cover on rolling surface. Some white sage, mostly grass, a few sunflowers. Everything recognized taken. ~~ex. & Met.~~ Met. tristatus which escaped.

Alpina num., chiefly juvs.

Acrocephalus 1 ♂ impt.

Mel. tristatus 1 ♂ taken.

" f. = a few.

" dawsoni 1 pair taken.

Hypochlora 1 juv. impt - all seen.

$$\text{Orth. } 23 + 424 = 447.$$

$$\text{Other vis. } 0 + 48 = 48.$$

1956.15 4 ms. W. of Medora, Billings Co., No. Dakota. VIII. 3. 1956. (R.)

Elev. (an.) 2475 feet.

In "bad lands" canyon. Short grass, little white sage, etc. Little O.

Alpina, a few.

Ceryle pseudonivifrons 1 taken, all seen.

Hypochlora 1 ♀ taken, all seen.

$$\text{Orth. } 6 + 447 = 453.$$

$$\text{Other vis. } 0 + 48 = 48$$

1956. 16 5 mo SW. of Glendive, Dawson
Co., Montana. VIII. 4, 1956. (R.) Elev. (an.)
2125 feet.

Great Plains grass condition with taller
grass and weeds in very shallow
roadside drain, just up out of the
Yellowstone flood plain, but not on top of
the bordering bench. Orthoptera very abundant.
Melanoplus f. 2. and Agaveotettix swarming.
All fauna and species carefully recognized
and taken.

Mormon local in small numbers in taller
grass + weeds.

Acrida few adults + juvs.

Amphitornis a few in one spot - two taken.

Phlebotoma locally numerous.

Antlocara not common, in shorter grass.

Boopis scattered, in taller grass + weeds.

Males very active, female much poorer jumpers.

Agaveotettix abundant + frequent.

Alphina pseudonitens sw. seen, 1 taken

Encyrtolophus 1 taken, all seen.

Trachyrhachis 1 taken, all seen.

Mutilla local, a number seen, three taken

Hippiscus a few, 3 ♀ taken, always singly.

Hypostethus very local.

Phortetia ad. - juvs. a number.

Mel. albana mus. Everywhere and exceedingly abundant.

Mel. paschandi - fordus mun. in the better growth.

Mel. other sp. A few only.

Cnecoph a very few.

Orth. $118 + 453 = 571$.

Orth. im. $0 + 48 = 48$.

1956. 17 3. 5 mo. NE. of Fallon.

Prairie Co., Montana. VIII. 4, 1956. (R.)

Elv. (an.) 2275 ft.

Clayey slopes and shoulder at a low sandstone butte on the back back from the Yellowstone River. Cover thin grass, very dry. Orth. few. Everything recognizable exc. 1 Anophis pseudonictans.

Phibistoma 1 Taken.

Opeia very few, 2 Taken.

Cnecphitoma 1 Taken.

Cnecocara 1 Taken.

Hippiscus 1 ♂ Taken, all seen.

Spharagnum collare 1 Taken, all seen.

Trinervopsis hornei 1 Taken, all seen.

1956. 17 (cont.)

Nesporittix viridis ov. seen, 1 taken.

Hastylotum 1 taken on ground, all seen.

Mel. packardii a few, 160 taken.

" fun-rubr. sev. taken.

" cinereus ? 1 taken.

Orth. $18 + 571 = 588$.

Other ins. $0 + 48 = 48$.

1956. 18 2 ms. E. of Miles City, Carter
Co., Montana. VII. 4, 1956. (R.)

Elv. (an.) 2260 feet.

Yellowstone River bottom lands. Very
ditch with tangles and trouble used
and adjacent scattered sage. Very dry.

Almost no O. All species neg. taken.

Photaliotes 1 juv. taken

Opeina 1 ad. 1 juv. taken.

Mel. f. r. a few, 1 taken.

Celastrus ov. taken from sage.

Orth. $7 + 588 = 595$.

Other ins. $1 + 48 = 49$.

1956.19 10 ms. SW. of Miles City,
Custer Co., Montana. VIII. 4. 1956. (R.)
Elev. (am.) 2625 feet.

Top of bench S. of Yellowstone River.
Scattered sage, grasses, prickly pear
and a few yucca. Almost no C.
exc. Mil. J. 2.

1 just *Aegiphia* taken. 1 *Ceanothus* swept from grass.
Nyctelia in fall apparently true sage. J.

Orth. $14 + 595 = 609$.

Orth. ins. $0 + 49 = 49$.

1956.20 3 ms. N. of Vananda,
Ravalli Co., Montana. VIII. 5. 1956. (R.)
Elev. (am.) 2640 ft.

Bench range condition. Heavily overgrazed
and very dry. Patch with tall but very
dry weeds. Everything recogn. taken. Orth. very scarce.
Aegiphia very few.

Opis ditto - as almost here found.

Herodotus in virtually bare ~~low~~ baked
silt.

Mil. form. sub. in ditch growth.

Cynophalus ditto

Orth. $9 + 609 = 618$.

Orth. ins. $0 + 49 = 49$

1956.21. 4 ms. SE. of Ingomar, Rosebud Co.,
Montana. VIII.5. 1956. (R.) Elev. (an.) 2900 ft.

Almost no Q.

Great Plains brush condition. Sparse grass,
low sage, a few patches of tall grass and weeds
in some dry ditch.

Agrostis. Mel. f. r. - anthracina.

Uith 4 + 618 = 622.

Uith sin. 0 + 49 = 49.

1956.22 1 m. W. of Sumatra, Rosebud Co.,
Montana. VIII.5. 1956. (R.) Elev. (an.) 3130 ft.

High open brush with low sage and sun-cured
short grass - very dry. Everything recognized
taken except 1 Microstema carolina.
by little Q.

Mel. mex. 1 ♂ taken.

" parkmani 1 ♀ taken.

Conoceph. 1 taken.

Uith. 3 + 622 = 625.

Uith sin. 0 + 49 = 49

1956.23 2 ms. NE. of Musselshell,
Musselshell Co., Montana. VIII.5. 1956. (R.)
Elev. (an.) 3025 feet.

On rim of brush along N. side of Musselshell
River Valley. Scattered pine with sun-
cured grass as ground cover.

Everything recognized taken.

Cordilleria a single ind taken, all seen.

Alpina very few, 1 taken.

Amphitornus sev. taken, all seen.

Andrena not num., 3 taken, scattered.

Agrostotritia relatively common.

Philobroma abundant, rather common.

Trachyrhachis on bare spots, a number taken.

Metator a few, 3 taken in separate areas.

Spharagnum argus. a single ♀ taken, all seen.

Met. herpessotritia 1 taken, all seen.
putandi or fridus - a few.

" sp. sp., a few.

$$\text{Crotch. } 60 + 625 = 685.$$

$$\text{Other no } 0 + 49 = 49.$$

1956.24 6 ms. N. of Roundup.

Musselshell Co., Montana. VIII. 5; 1956 (R.)

Elev. (an.) 3640 feet.

On bench N. of Musselshell River.

Many exposed ledges of yellowish limestone, with ^{but open} forest of pine. Low grass, weeds & associated vegetation.

All species recognized taken except H. carolina.

1956. 24 (cont.)

Uf Cucotettix saw and heard about six, but most landed high up on steep ~~at~~ wall of cut. Several came on level shoulder and eventually one of these was taken.

Agrotettix a few. 1 taken.

Gryllus pseudonitens 1 one found.

Chortomys haydeni Fairly numerous, usually on bare ground.

Trimerotropis monticola type. 1 ♂, 1 ♀, all seen.

Hesperotettix a few, 1 ♂, 2 ♀ taken.

Melanoplus pachardi In taller weeds, 3 taken.

$$\text{Orth. } 18 + 685 = 703.$$

$$\text{Other ins. } 0 + 49 = 49.$$

1956. 25 11 mi. S S E. of Grassrange, Fergus Co., Montana. VIII. 5, 1956. (R.)

Elev. (an.) 4360 feet.

High open short grass plain with occasional tumble-weed, then weeds and tall grasses roadside.

Everything recognized taken.

Agrotettix a number, but not abundant.

Aeropedillus a single ♀ taken.

Platythorus brunnea A small number, not num. 5 taken.

Camula a fair no. small ones taken.

Mutata a few, ♂ & ♀ taken.

Andrena mod. numerous. 5 taken.

Tricentropis monticola type. Not
numerous. 3 taken.

Mel. vittata exceedingly abundant,
partly in roadside taken under -
marked diff. in size of ♀♀. Many dead
up at the top of tall weeds (fungus?)

Mel. pachardi type. Mod. num.

" quies (infantilis) a few.

" dassoni common and several,
miss taken.

" mix. 1 ♂ taken.

Oecanthus a few swept.

Orth. 64 + 203 = 767

Other no. 0 + 49 = 49.

1956. 26 8 ms. WSW. of Lewisfork,
Fergus Co., Montana. VIII, 6, 1956. (R.) -
Elev. approx. 4000 ft.

Tall wheat grass in unmowed roadside
bordering alfalfa and wheat fields.

All sps. of O. recognized were taken.

Pseudopomala, the 2 taken all seen, in tall grass.

Chorthippus abundant.

1956.26 (cont.).

Camnula 1 Taken, all unrecognized.

Phytalites a few, two adults taken.

Mel. f. r. very abundant.

" mix . . .

" trittatus locally abundant, chiefly adult.

" dansoni numerous.

Orth. pladistis All unrecognized and washed,
5, Taken. In fall grass.

Cneph. fasc. 1 unpt.

" near saltans ? Abundant, Adults &
juvs. Relatively few.

Orth. $71 + 767 = 838$

Orth. vic. $2 + 49 = 51$.

1956.27 1.5 ms. E. of Straw, Fergus Co., Montana.
VIII.6. 1956. (R.) Elev. (an.) 4460 feet.

Roadside fall grass, along side of alfalfa
field.

Everything unrecognized Taken.

Choraltis 1 seen & taken. In grass near

dead ^{dry} weed stalks about 20 mm. in

diameter - ovipositing? No other work seen

Chorthippus num. ad. - juvs.

Camnula a small number.

Mel. trittatus a few, fair no.

Mel. f. r. Present in num.

" mex. " " "

Concept. very few.

Utch 19 + 838 = 857.

Utch in. 2 + 51 = 53.

1956. 28 North side slope of Judith
Gap (1.5 ms. N of Town of same name), Fergus
Co., Montana. VIII. 6. 1956. (R.) Elev. (an.)
4940 feet.

Roadside (adjac. to hay fields), with
tall weeds - grass, some sage, some
yellow-flowered composites, a few
Rudbeckia, etc.

Utch. ^{fairly} abund. ^{but species limited.} All species scarce. Taken esp.
1 Neoperotetes (lost).

Aeropedellus 1 ♀ swept. All seen.

Mitotus very few, 1 Taken.

Mel. bristatus Common.

" parkardi "

" formosus mex. Abund.

" dunsoni Not seen. 2 Taken

" infantilis A few.

Concept. a number.

Ucauthus 1 swept

Utch. 23 + 857 = 880.

Utch in. 2 + 53 = 55

1956.29 4 ms. N. of Harlowton, Wheatland
Co, Montana. VII. 6 1956. (R.) Elev. (an.)
4700 ft.

Undisturbed range conditions. Tall
grass, sunflowers, etc. in spots; short
grass and ~~exposed~~^{bare} patches of ground in
others.

Everything recognized taken.

Chorthippus appan & c. - 1 taken.

Amphitornus - a few, 2 taken.

Argia poudonctana a number but singly,
4 taken, all seen.

Agrestotettix a few only.

Metator 1 taken.

Hadrotettix The only one seen.

Trin. monticola 2 taken, all recognized.

" citrina type 1 taken, all recognized.

Trachyrhynchus a few, 4 taken.

Mel. fuscicornis mel. brevis - ad. - juv.

" pachardi Abundant.

" infantilis Numerous.

" cinerus type? 1 taken.

Phostolutes juv. only.

Archel. gladiata 1♀, all new
Cynoph. talpin? Numerous.
Lenth. $49 + 880 = 929$.
Lenth ins. $0 + 55 = 55$.

1956 30 16 mo. S. of Harlowton,
Sweet Grass Co, Montana VIII. 6, 1956. (R.)
Elev. (am.) 5300 ft.

High plains with short grass, rather well
grazed, prob. by sheep.

Grasshoppers swarming, not only Mel.
all species new. one taken.

Platybotanus by the thousands - all adult.

Amphitrua More num. than I have
ever recalled seeing it. All adult.

Philobothrus num. some juvs.

Agrostis Common.

Antocara A fair no.

Mitotus 1 taken.

Trachyphaps 1 taken - Lichenne type, but
no trace pattern for it!

Trinotropsis Latif. type 1 taken

Hesperotellus a small no - no jumping.

Mel. parkardi Type abund.

" infantilis? abundant.

" dansoni Common.

1956 30 (cont.)

Mel. another species. A few.

Conocephalus a single one taken.

Anabrus 1 lone ♀ seen & taken. No
evidence of any other. Local citizen
said it was not general, but that an area
some few miles away usually had them.

Catch. $126 + 929 = 1055$

Catch in $0 + 55 = 55$.

1956. 31 9 mi. N. of Big Timber, Sweet Grass
Co., Montana. VII. 6. 1956 (R.) Elev. (am.)
4950 ft.

Tall grass roadside with adjacent area
of shorter grass and some bare patches.

Anything new? Taken esp. 1 Aegialia
pseudonitens.

Chorthippus not common. Juvs as well as adts.

Aegialia a few.

Antenna 1 taken.

Pseudopomala 1 ♂ taken. No more could be
located. In tallest grass.

Camula abundant.

Mitatus more common than I had ever seen it
before. 9 taken. It exhibited the ability to
hide very quickly and apparently, if missed,
it burrowed down among grass roots.

Enicospilus numerous. Adults - juvs.
Not localized.

Neurostictus a few.

Mel. vittatus common.

" pachardi numerous.

" funus-rubrum "

Cneph. fasc. 1 taken.

" salinus numerous.

Acanthos a few swept.

Uts 67 + 1055 = 1122,

Uts vis. 0 + 55 = 55.

1956 32 11 ms. ^{NW?} S. of Big Timber, Sweet
Grass Co., Montana. VIII. 7, 1956. (R.)
Elev (am.) 4180 feet.

Roadside - tumble weed (in part dead)
low yellow-flowered composites, etc. with
brown spots. Wind very high.

Agrostis a few.

Antenna 1 taken.

Herotoma hayd. a few on bare ground.

Trin. multicolor type 1 taken.

" latifasc. type 1 " on bare ground.

Neurostictus 1 taken.

Mel. vittatus a few, 1 taken.

" pachardi " " 1 taken.

Acanthos 1 swept.

1956. 32 (cont.)

Urth 144 + 1122 = 1136.
Urth ins. 5 + 55 = 60.

1956. ~~32~~ 33. Shields River Valley 4 ms. N. of
Yellowstone Riv., Park Co., Montana VIII. 7. 1956.
(R.) Elev. (am.) 4500 feet.

Tall rank weeds in dry ditch, bordering areas
cultivated fields. Little Q! - all species seen
taken.

Chorthippus, a very few, 4 ad. - 1 juv. taken.

Camnula - a few, 2 taken.

Agrostis 1 taken.

Conoph. fasc 1 pupa.

Urth. 9 + 1136 = 1145

Urth ins. 1 + 60 = 61

1956. 34 2 ms. N. of Wilson, Park Co., Montana.
VIII. 7. 1956. (R.) Elev. (am.) 5100 feet.

Open range country - sage, yellow-flowered
Composites, purple flowered thistle, etc.

No Q. noticed except Mel. viritt. & M. fem-
urum, both collected.

Urth. 2 + 1145 = 1147.

Urth ins. 0 + 61 = 61

1956.35 East side of pass (find name)
on Big Belt Mountains (about 1 m. E. of
highest point), 9 ms. NW. Calhoun, Meagher
Co., Montana. [chk on Little Belt chart for
VIII. 7. 1956. elev. check]

(R.) Elev. (alt. reading 5300 ft., but prob. for
low.) 5800

Roadside tangles of tall weeds - grasses
bordered by grass - open range land.
No timber except in shallow draws on
the E. side of the range. The roadside
conditions were more varied than on the
range surface.

Orth. scarce. All species unrecognized
taken.

Acrope-dellus scarce, all seen taken,
3 ♂, 2 ♀.

Camnula a few, one taken.

Mel. bristatus a number, 3 taken.

" atata bruneri Type. 1 ♂,

" daosoni a few.

" infantilis? a few adults - juv.

Orth. 21 + 1147 = 1168.

Orth. mis. 13 + 61 = 74.

1956.36 West side of pass on Big Belt
Mts (see 1956.35) 20 ms. E. of Townsend,
Broadwater Co, Montana. VIII. 7. 1956. (R.)
Elev. (alt.) ~~5750~~⁵⁶⁰⁰ ft.

Relatively dry mountain meadows with
tall rank growth, along stream, bordered
by open but solid forest of pine and aspen.
All species of *O.* recognized except one ex.
"clatter", who could not be secured.

Chorthippus a number, both sexes collected.

Chrysothraupis alb. A single ♀ all seen - Taken.

Whilgust ranch added no more. Particular
attention was paid to areas of dead limbs.

Heliopteria cardina 1 ad. ♂ on road material,
also 1 juv. sw. other seen.

Camnula truncata in places.

Mel. brittatus in numbers, both 3 Taken.

" dawsoni not common, both sexes Taken.

" brunni 1 ♂ Taken.

Catch. 26 + 1168 = 1194.

Other ins. 1 + 74 = 75.

1956.37 West side of same pass as 1956.36
but lower down, 17^{ms} E. of Townsend,

Broadwater Co., Montana. VIII. 7. 1956. (R.)

Elev. approx. 4800 ft.

Mountain meadows but more open and
more grassy than at 1956.36, with mullen

and yellow-flowered composites.

All ^{but} ~~the~~ recognized were taken.

Chrysocramon adon. 1 ♂, all which
could be located, not near wood.

Chorthippus numerous.

Camnula abundant.

Mel. vittatus a few.

" femor-rubrum? 1 ♀.

" dunsoni very common.

Orth. 41 + 1794 = 1235,

Other ins. 1 + 75 = 76.

1956 38 Along Ten Mile Creek, 4 ms.

WSW. of Helena, Lewis and Clark Co.,

Montana. VIII. 8. 1956. (R.) Elev.

(alt.) 4150 ft.

Narrow roadside in narrow gulch. Sage,
buckle and, tall grass, etc.

Little var. of C. All species recogn. taken.

Chorthippus - a few.

Agrostis - 1 taken

Neopentstia - 1 "

Mel. femur-rubrum - None.

" mix. A few.

" vittatus a few.

Orth. 15 + 1235 = 1250

Other ins. 0 + 76 = 76

1956 39 East side of Continental Divide
(name of range? not on topographic) 12 mi.
W. of Helena, Lewis & Clark Co., Montana.
VIII. 8. 1956 (R.) Elev (alt.) 5600 feet

In heavy fir forest with rather heavy low
surface cover, occ. small glade-like sunlight
spots. All species of *O. sin* taken, most in
the small sunny spots, much dead wood
but no Chrysoschoenus *sin*. One male of Mel.
Altitudinum type running himself on a
rock in the sunlight.

Chorthippus locally numerous, more immature
than adult. Mel. altitudinum relatively few,
Trim. rufescens 2 males + 4 ♀ taken.
Small numbers on the
surface of cut bordering road on earth and
stones.

Orth. 25 + 1250 = 1275
Other ins. 1 + 76 = 77

1956. 40 Mc Donald Pass, Continental
Divide, W. of Helena, Lewis - Clark - Powell
Cos., Montana. VIII. 8. 1956. (R.)
Elev. (b. m.) 6325 ft.

Open dry type of Hudsonian meadows,
not up to timber line. Low cover of
grasses and the usual brilliant

Hudsonian wild flowers, with surface
with scattered boulders, some of large
size.

All *O. species* recognized were taken
except *T. suffusus*, of which a very few
were seen.

Chorthippus - in fair nos.

Camnula - a few:

Mel. Sp. - a few.

" brunni few, ♂ & ♀ taken.

Orth. 17 + 1275 = 1292.

Other nos. 2 + 77 = 79.

1956.41 2 mo. E. of Garrison,
Powell Co., Montana. VIII. 8, 1956. (R.)

Elw. (alt.) 4600 feet.

Roadside-narrow strip of grass and
tall weeds in ditch and surface of an
adjoining rock cut.

All *O. species* recogn. were taken.

Aeropedellus 1 ♀ mpt.

Amphitornus 1 in ditch, alt seen.

Blissotaria com. a few, 1 taken, roadside

Trin. suffusus on cut surface.

Cicot. rubula a few on cut surf. 1 taken.

Mel. vivittatus in ditch - 1 taken

Orth. 6 + 1292 = 1298.

Other nos. 0 + 79 = 79.

1956.42 Along Clark Fork [of Columbia
River], 5 ms. WNW of Garrison, Powell
Co, Montana. VIII. 8. 1956. (R.).

Elev (chart - alt.) 4350 feet.

In old field with many dead mullen
stalks and heavy tangled cover of numerous
species of weeds.

Anything recognized Taken.
Chorthippus abund. ad. - juv.

Camnula 1 taken.

Mel. lividatus a few, 1 taken.

" fulvus-rubrum 17 1/2 taken

" with black bordered abd. apex - no. males.
two females Taken.

Calc. 19 + 1298 = 1317.

Other no. 0 + 29 = 29.

1956.43 Bearmouth, Granite Co., Montana.
VIII. 8. 1956. (R.) Elev. (alt.) 3950 ft.

On flat shoulder - beside road - on north
bank of Clark Fork opposite Bearmouth
RR. Station.

In area of natural tall grass, mullens
- other weeds, with certain patches relatively
bare.

All species recognized were Taken.

Amphitornus in fair nos. 6 Taken.

Orphina pseudonictana Occas. 2 ad. - 1 juv Taken

Camula a single ♂ taken.

Blissostoma can a number - 1 taken.

Trachychochis appar. few - 2 taken.

Phutalidis 1 juv. taken, all unrecognized.

Mel. vittata In numbers.

" perhardi Numerous.

" ferrugineum Frequent.

With $24 + 1317 = 1341$.

Other no. $0 + 79 = 79$.

1956 44 Along Clark Fork, 3 ms. NW. of
Clinton, Missoula Co., Montana. VIII. 8, 1956.
(R.) Elev. (alt.) 3600 ft.

In old field heavily grown up, and abandoned
road surface.

All sps. of C. ~~to~~ unrecognized taken.

Arphia pseudonectana a few, 1 taken.

Camula 1 taken, all unrecognized.

Blissostoma carolinense num. on abandoned
road surface, 2 taken.

Trinervetropis caeruleipes 2 taken, a few
others seen.

Mel. dawsoni 1 taken, all unrecognized.

" mer. type a few, sev. taken.

" flavipes type ? 1 ♀ taken.

Chrysanthus - 1 swept.

With $13 + 1341 = 1354$.

Other ins. $1 + 79 = 80$.

1956.45 2 mo. SE. of Florence, Ravalli
Co., Montana. VIII.9, 1956. (R.) Elev. (alt.)
3200 feet.

Edge of open pine woods and field of
out grass and mullen.

Almost no Q. except M. mex.

Agrost. 1 taken, all noticed, in out grass.

Leith. $5 + 1354 = 1359$.

Alther in. $0 + 80 = 80$

1956.46 Lost Trail Pass, Bitterroot Mts.,
Ravalli Co., Montana - Lemhi Co., Idaho.
VIII.9, 1956. Elev. (t.m.) 6951 feet.

Fire-tailed pine and fir forest - definitely
Hudsonian. No open meadowy areas.

Ground surface chiefly rock fragments.

No Q. at all after considerable effort.

Bunches are abundant.

Leith. $0 + 1359 = 1359$.

Alther in. $3 + 80 = 83$.

1956.47 So. side of Lost Trail Pass,
Bitterroot Mts., Lemhi Co., Idaho.

VIII.9, 1956. (R.) Elev. (ann.) 5400 feet.

In fir forest and little openings in
same. Leith. very scarce.

Chorthippus - 1 taken, all seen.

Camnula - the only C. at all evident,
general, ^{but not common.} 4 ad. - 1 juv. taken.

Trin. suffusus - 1 taken on stony road
surface, all seen.

Mel. sp. (short-winged) 2 males taken,
1 ♀ lost. In low growth.

Stenopus # 1 taken near wild strawberries,
all seen.

Orth. $10 + 1359 = 1369$.

Orth. $6 + 83 = 89$.

1956. 48 Along North Fork of the Salmon
River, 2 mo. S. of Gibbonville, Lemhi
Co., Idaho. VIII. 9. 1956. (R.) Elev. (alt.)

c. 5000 ft.

Ureacast.

In low cover, often heavily tangled.
Including spruce and pine forest.

C. not at all numerous.

Chorthippus - 1 juv. taken. All seen.

Camnula abundant.

Platybothrus sp. 1 ♀ taken, all seen,
in tangled cover. A careful search
netted no more.

Mel. both bivittatus Not common, 3 taken.

1906.48 (cont.)

Mel. fuscus ruber 1 ♂ def. taken.

" mex. type. Numerous

" black-bordered subg. pl. 1 ♂ taken. No more recognized

Stirax 5 seen, 2 taken. Expert litters in the tangled low cane, some of which was wild strawberry.

Arct. ~~15~~²² + 1369 = 1391

Atterus. 6 + 89 = 95

1906.49 Along Salmon River at mouth of
Birney Creek, 16.5 ms. S. of Salmon,

Lemhi Co., Idaho. VIII.10.1906. (R.)

Elw. (alt.) 4200 ft.

Narrow bench with a little road material,
clawed sage, Grayia?, rabbit-wood and
sun-cured oak grass. All Q. recognized taken.
Q. not numerous - very local.

Amphitomus the one taken all seen.

Exc. Asaphia
pseudonictana

Conozoa appar. in colonies on the same spot.

Mel. mex. type in nest, no.

" sp.? 1 ♀. distinct, banded legs.

Cecanotus swept from rabbit wood.

Arct. 15 + 1391 = 1406.

Atterus - 0 + 95 = 95

1956. 50 Along Salmon River near mouth
of Albion Creek, Lemhi Co., Idaho. VIII. 10. 1956.
(R.) Elev. (alt.) 4700 ft.

Silt, ~~and~~ small boulders and many
small stones, with sage and rabbit weed.
All species of *O. recognized* were taken.
Trim. bilobata locally numerous, but very
active. Acc. flies into sage.
Mel. sp.? 1 ♂ taken.

$$\text{Urch. } 12 + 1406 = 1418.$$

$$\text{Urch. ins. } 0 + 95 = 95.$$

1956. 51 Along Salmon River $\frac{1}{2}$ m. NE. of
mouth of Morgan Creek, Custer Co., ~~Mont~~ Idaho.
VIII. 10. 1956. (R.) Elev. (alt.) 4900 ft.

In sage, *Sarcobatus*, rabbit weed and
shad scale. All species of *O. recogn.*
were taken.

Trim. gracilis - the one taken all seen.

" *bilobata* - numerous but very active.

Mel. packardii type. Female taken all
recogn.

Ascanthia - unsp.

$$\text{Urch. } 9 + 1418 = 1427.$$

$$\text{Urch. ins. } 0 + 95 = 95.$$

1956. 52 15 ms. S, S, E. of Challis, Custer Co.,
Idaho. VIII. 10. 1956. (R.) Elev. (alt.) 5950 ft.

On gravelly and stony silt with sage, rabbit weed,
Grass (? (spring) etc., but very little grass.

All species of *C. marginatus* were taken.

Herotoma not numerous, local.

Trim. pallidus. A number seen, chiefly roadside,
one taken.

T. gravis - 1 taken, all seen.

Aerochoreutes - 2 seen, 1 taken.

Orth. 6 + 1427 = 1433,

Other ins. 0 + 95 = 95.

1956. 53 11 ms. SE. of Chilly, Custer Co.,
Idaho. VIII. 10. 1956. (R.) Elev. (alt.) 6550⁶⁵⁵⁰ feet.

Low sage and low shrub-scale, with areas of
bare stone. All species of *C.* taken except
marginatus.

Herotoma moderately numerous, but almost
no females seen. Very elusive - hard to see.

Trim. gracilis. Two - 2 taken.

Aerochoreutes but 1 seen, and taken, on
broken gray blue stone exactly the same
color as the insect.

Orth. 7 + 1433 = 1440.

Other ins. 0 + 95 = 95.

1956.54 8.5 ms. SW. of Arco, Butte Co., Idaho. VIII.11, 1956. (R.) Elev. (alt.) 5400 ft.

Rabbit used with very little sage, some low brush grass on strong soil.

No O. taken.

Blister lutes all in rabbit used.

$$\text{Leth. } 0 + 1440 = 1440.$$

$$\text{Uther vis. } 6 + 95 = \frac{101}{91}.$$

1956.55 7 ms. SW. of Carey (1 ms. NE. of Tikhona), Blaine Co., Idaho. VIII.11, 1956. (R.) Elev. (alt.) 4925 feet.

In sage and rabbit used.

No Leth.

$$\text{Leth. } 0 + 1440 = 1440.$$

$$\text{Uther vis. } 6 + 101 = 107.$$

1956.56 2 ms. SW. of Redfield, Lincoln Co., Idaho. VIII.11, 1956 (R.) Elev. (alt.) 4560 ft.

Sun-cured oat grass - few rabbit-used.

Cougar few.

Almost nothing.

Mel. mus. Type a few.

$$\text{Leth. } 4 + 1440 = 1444.$$

$$\text{Uther vis. } 0 + 107 = 107.$$

1956.57 2 ms. S. of Shoshone, Lincoln Co.,
Idaho. VIII. 11, 1956. (R.) Elev. (alt.) 4400 ft.

Rather tall sun-cured oat grass with some
sprigs of silt or corn fragments.

All C. insignis ^{sp.} were taken.

Culocara not numerous, scattered, 4 taken.

Trachypharis 1 taken, all seen.

Conozoa abundant and exceedingly active.

Mel. mex. type, abundant - free flying.

Cedalonotus enigma in fair no. very
active for a non-flying species. local.

Stenopogon sp. 1 ♀ ^{full of eggs} kept. No other seen.

$$\text{Cith. } 33 + 1444 = 1477.$$

$$\text{Other vis. } 0 + 107 = 107.$$

1956.58 2 ms. NW. of Shoshone Falls,
Jerome Co., Idaho. VIII. 11, 1956. (R.)
Elev. (alt.) 4100 feet.

Old field of sun-cured tall oat grass,
timothy and other weeds.

All C. insignis taken.

Culocara 1 taken, all seen.

Cedalonotus enigma. Few, 1 taken.

Mel. mex. type common.

$$\text{Cith. } 4 + 1477 = 1481.$$

$$\text{Other vis. } 0 + 107 = 107.$$

1956. 59 4 ms. S. of Berger, Twin Falls Co.,
Idaho. VIII. 12. 1956. (R.) Elev. ?

Sage and sun-cured cat. grass, with some
fiddle-wood (largely dead) on this soil
on lam.

Very little Q.

Corynor roadside, 1 taken.

Agrost. - Trin. gracilis seen but lost.

Orth. 1 + 1481 = 1482.

Orth. us. 0 + 107 = 107.

1956. 60 3.5 ms. SW of Rogerson, Twin Falls
Co., Idaho. VIII. 12. 1956. (R.) Elev. (alt.) 4700 ft
+ rabbit ^{and} large country. Almost no Q.

Corynor seen but lost.

Hel. mex. type - no. seen, 1 taken.

Orth. 1 + 1482 = 1483.

Orth. us. 0 + 107 = 107.

1956. 61 15 ms. SW of Rogerson, Twin Falls
Co., Idaho. VIII. 12. 1956. (R.). Elev. (alt.)
5200 ft.

In sage and sun-cured grass with open
areas between these often paved with broken
stone and pebbles.

Q. not at all in evidence.

Trin. gracilis seen - lost.

1956.61 (cont.)

The single Aeroboreutes taken was all seen.
It was on the shingle and matched rock
fragments exactly in color.

Orth. 1 + 1483 = 1484.

Other vis. 0 + 107 = 107

1956.62 4 ms. due N. of San Jacinto, Elko
Co., Nevada. VIII. 12. 1956. (R.) Elev. (alt.) 4800 ft.
Apparently grayia? (spring) and rabbit used on
hill with some areas alkali vicinated.

All species of O. recognized were secured.
Individuals were very few.

Camnula The one taken was all seen.

Trin. pallidip. a few.

Cicob. undulatus 84 seen = taken.

Orth. 5 + 1484 = 1489.

Other vis. 0 + 107 = 107

1956.63 Near Salmon Falls Creek, 1.5 ms. S. of
Contact, Elko Co., Nevada. VIII. 12, 1956. (R.)
Elev. (alt.) 8000 ft.

Hilly divide of weathered granite boulders, the
fine gravel from the decomposition of which covers
the surface, bare in large areas, with sage
and rabbit used in others.

All species of O. recognized were taken.

Cordilacris a single specimen taken
on gravel.

Trim. pallidip. A few - 2 taken.

" trilobata 1 taken, all seen.

" Contrastingly colored - almost
always on the granite gravel.

Not exceptionally active.

Mel. ruf. sp. a few - 2 taken.

Orth. 11 + 1489 = 1500.

Orth. ins. 0 + 107 = 107.

1956.64 16 ms. S. of Contact, Elko Co.,
Nevada. VIII. 12. 1956. (R.) Elev. (alt.)
5325 ft.

Entirely sage on gently rolling slopes
with numerous gravelly or stony bare
spots.

All species O. ruf. taken.

Herotomus local - not numerous.

Trim. trilobata scarce.

" Other sp. 1 taken, all seen.

Orth. 8 + 1500 = 1508.

Orth. ins. 0 + 107 = 107

1956.65 Summit of divide 6 ms. S. of
US. 93 crossing of Thousand Spring Creek, Elko
Co., Nev. VIII. 12. 1956. (R.) Elev. (alt.) 6250 ft.
Tall - low sage, much dead wood, rabbit weed - tall sun
cured grass. Almost no O. Trim. gracilis taken
Orth. 1 + 1508 = 1509.
Orth. ins. 1 + 107 = 108.

1956.66 4.2 ms. S. of Wells, Elko Co.,
Nevada. VIII. 13. 1956. (R.) Elev (alt.) 5600 ft.

Sage and rabbit weed on silt, latter in greater
part with pavement of small broken stones.

All species of *O. recognized* taken.

Trim. gravis, as usual, about sage.

" reddish species with three tibiae matches
in its red tone the shrub on which it
occurs.

Orth. $4 + 1508 = 1512$.

Orth. no. $0 + 107 = 107$.

1956.67 Eastern border of Goose Lake
Lake, 3.5 ms. S. of junction of U.S. 93 - alt.
U.S. 50, White Pine Co., Nevada. VIII. 13. 1956.
(R.) Elev. (with alt. + an.) 5750 feet.

On the dry adobe 1 *Aeroboreus*.

On stony border 1 ditto - 1 *Trim.* ^{pale} reddish
with blue ^{green} tibiae.

All this *O. seen*.

Orth. $3 + 1512 = 1515$.

Orth. no. $0 + 107 = 107$.

1956.68 10 ms. S.E. of Cherry Creek, White
Pine Co., Nevada. VIII. 13. 1956. (R.)

Elev. (altim. - an.) 5825 feet.

Corn almost entirely in sage with
bare areas between.

Single Trim. taken was the only
orth. seen.

Orth. $1 + 1515 = 1516$.

Orth. vis. $0 + 107 = 107$.

1956.69 7 ms. N. of McGill,
White Pine Co., Nevada. VIII, 13, 1956 (R.)

Elev (mean of instruments) 6000 ft.

Corn very low and some rabbit weed
on silt with wash ridges of gravel.

All species of O. usoga. were collected.

Aeroborantes the one taken was all run.

Trim. pallidip. larval, one taken.

" sp. with greenish-blue tints.

One taken all run.

Orth. $3 + 1516 = 1519$.

Orth. vis. $0 + 107 = 107$.

1956.70 4.5 ms. SW. of Junction of
U.S. 6 & Nev. 38 (in White Pine Valley),
White Pine Co., Nevada. VIII. 14, 1956.

Elev. (alt.) 5850 ft.

Shallow valley with corn fragaria?,
sage & some rabbit weed.

All species of O. usoga were taken.

Trim. bicolorata a number seen, but all were
very elusive. 1 taken.

Trim. bicolorata with greenish tints. The two

1956.70 (cont.)

Fishes were all seen.

Uth. 3 + 1519 = 1522.

Uth. vis. 0 + 107 = 107.

1956.71 Current Creek Summit, Nye Co.,
Nevada. VIII. 14. 1956. (R.) Elev. (t.m.) 6999 feet.

Slopes, under juniper and piñon, of silt with
many rock fragments and coarse gravel,
apparently of lava and sedimentary rocks.

Cordillarius very local on more silty areas,
exceedingly active, ^{especially the males,} and few in summer.

Trim. cyanipes type. On stony areas, in fair
numbers and not very elusive.

Uth. 8 + 1522 = 1530.

Uth. vis. 0 + 107 = 107.

1956.72 Hot Creek Valley, near Rattlesnake
Highway Maintenance Station, 17 ms. SW. of
Black Rock Summit, Nye Co., Nevada.

VIII. 14. 1956. & Elev. (av.) 5600 feet.

Common sage, shrub-scale and ~~scab~~ rabbit
weed on silty surface.

All O. seen 1 Trim. streuma taken.

Uth. 1 + 1530 = 1531

Uth. vis. 0 + 107 = 107.

1956.73 East side of road crossing
of Hot Creek Mountains, Nye Co., Nevada.
VIII. 14, 1956. (R.) Elev. (ann.) 5675 ft

Corn sage, shad-scale and rabbit weed
Only O. seen was Trim. strema, of
which a small series was taken. The
species sometimes flies into low sage.

It is not particularly elusive, nothing
as much so as T. pallidipennis.

$$\text{Colth. } 7 + 1531 = 1538.$$

$$\text{Colth. no. } 0 + 107 = 107.$$

1956.74 13.5 mo. W. of Coldale Junction,
Esmeralda Co., Nevada. VIII. 15, 1956. (R.)
Elev. (ann.) 5400 ft.

Corn shad-scale, Tropah & other plants
over on stone and gravel rimpled silt in
road canyon leading up westward to the
little settlement of Basalt.

Only O. seen Trep. & Trim. bilobata.
Trepidulus 2 taken, all seen.

T. bilobata lost but clearly identified.

$$\text{Colth. } 2 + 1538 = 1540$$

$$\text{Colth. no. } 0 + 107 = 107$$

1956.75 Montgomery Pass, Mineral Co.,
Nevada. VIII. 15. 1953. (R.) Elev. (b.m.) 7166 ft.

Juniper, piñon and some mountain mahogany
on lava with sage - rabbit used.

1 Melanoplus Taken.

Host a blue-winged Trinicrotopis.

Orth. 1 + 1040 = 1041.

Other vis. 6 + 107 = 113.

1956.76 3.8 ms. NW. of Benton (the Town),
Mono Co., California. VIII. 15. 1953. (R.).
Elev. (an.) 6825 feet.

Tall rabbit used and some sage on silt and
on strong hillside under bluffs of heavily
eroded sedimentary rock.

All species of C. seen taken.

Trin. bristolata few on silt, 1 Taken.

" blue trialis. 1 Taken all seen, on silt.

" strenua tw. seen, 1 Taken, all on silt.

Mel. quies, seeking refuge in rabbit used when
pursued. 2 Taken. But few seen.

Orth. 6 + 1041 = 1047

Other vis. 0 + 113 = 113

1956.77 17 mo. E. of Leavine, Mono Co.,
Cal. VIII. 15. 1956. (R.) Elev. (an.) 8500 ft.

Open high country with timber on some of
the Mono craters to the south or. miles.

Sage and some rabbit weed on finely
broken pumice. Wind strong.

All species of *O.* seen were taken.

The only Uedalonotus taken was in
rabbit weed.

Green-legged Trim. Not numerous on
the pumice surface.

Cordillaris 1 juv. taken, 1 ad. lost,
both on pumice.

Orth. $5 + 1547 = 1552$.

Uther ins. $0 + 113 = 113$.

1956.78 2.5 mo S & E of Leavine, Mono
Co., Cal. VIII. 16 1956 (R.) Elev. (chart)
7000 feet

Meadow at foot of Williams Butte.
Boggy in spots, with yellow composites -
tall grass.

See juv. Melanophyes all seen in meadow. - within parts of

Corchorus, ^{locally} numerous, roadside and on
drier areas in the meadow.

1956. 78 (cont.)

Orth. $25 + 1552 = 1577$

Other ins $3 + 113 = 116$.

1956 79 So. end of Pumice Valley, 7.5 ms SSE
of Leeving, Mono Co., Cal VIII. 16. 1956 (R)
Elev (aner. - ch.) 7500 feet.

Small flat enclosed by low hills (largely of
lava), surface volcanic ash, cover sage,
rabbit weed and mountain mahogany.

Examined trater from mountain mahogany -
no more seen even after long trating and
searching.

Trin with blue legs numerous in volcanic
till, but occ. flying into shrubbery.

Trin. gracilis Not seen, 1 taken, on till.

Mel. sp. in sage, very active, few seen,
1 taken.

Orth. $12 + 1577 = 1589$.

Other ins. $13 + 116 = 129$.

1956. 80 Near Deadman Summit (US 395),
25 ms. S. of Leeving, Mono Co., Cal.

VIII. 16 1956 (R.) Elev (b.m.) 8000 ft.

Only 1 seen Trin, apparently T. gracilis,
but lost.

Orth. $0 + 1589 = 1589$.

Other ins. $7 + 129 = 136$.

1956.81 2 mi S of Headman Summit,
Mono Co, Cal. VIII. 16. 1956 (R.)
Elev (ann.) 7900 ft.

In open bull pine forest on volcanic
silt, with ground cover in places of dead
pine needles and cones.

Xanth montanus type ϕ seen.

Two pairs, all noticed, none taken.

Orth. $4 + 1589 = 1593$.

Other vis. $0 + 136 = 136$.

1956 82 South side of Sherwin Hill,
to N of Round Valley, Mono Co, Cal.
VIII. 16. 1956 (R.) Elev. (b.m.) 6000 ft.

Slope largely of stony slabs, some of
large size, and stony gravel cone slope,
rather wet and mountain mahogany.

All species of ϕ clearly recognized were
taken. Not difficult on account of terrain
and difficult footing.

Cremastoid single ϕ swept from
mountain mahogany - all seen.

Amphitornus two seen, 1 taken. Exceedingly
active, apparently seeking shelter in
logs.

1956.82 (cont)

Trin. blue wing. Several seen, 1 taken. Very active, ~~was~~ apparently near the large rocks.


Lepus the single 1 taken was all seen. On strong gravel.

Mel. sp. Apper. in sage very active and most difficult to track down 1 taken.

With 5 + 1593 = 1598.

With ins 28 + 136 = 138.

1956.83 3ms. N of Laws, Inyo Co., California.
VIII. 17. 1956. (R.) Elev. (ch) 4150 ft

Salt grass - branching type  + tall rabbit-
weed on saline impregnated ground.

All species of O recognized taken. Individuals very few.

Mel dorsator - all seen were taken, flying freely.

Ophidella a few seen - two taken, very active.

With 5 + 1598 = 1603

With ins 0 + 138 = 138

1956 84 4.5 ms N. of Chalfont,
Mono Co., California. VIII. 17. 1956 (R)
Elev. (an.) 4700 ft.

Thicket shrubbery of numerous species - a little
sage, something resembling Koeberlinia.

a little tumble-weed (latter roadside).
Numerous stones and shallow washes
filled with stony silt and gravel.

All species of *O* recognized were
taken.

Trim. pallidus. A few, one taken.

" sp. n. sps.? If all one thing, note
the enormous variation in tone coloration,
and if but one, certainly immediate environ-
ment has had a play. The washes at
this place showed much variation in
the tone of the stones thickly strewn
over them. Species local in small
groups, not particularly wary, but
the colorations are most protective.

Orth 9 + 1603 = 1612.

Orth ins. 0 + 138 = 138.

1956.85 6 ms N of Benton Station,
Mono Co., California (1/2 ms. S of Nevada
state line) VII. 17, 1956 (R.) Elev (6 m)
6000 ft.

Sage and *Ephedra* on long outwash slopes
from Mt Montgomery in the White Mts.
(Inyo chain) to the east. Soil gravel and
silt.

1956.85 (cont)

g But ^{two} ~~one~~ species of *O. seen* -

Trim tritata - The single one taken was the only one noted

Trim grum-fibris. Not numerous

Uth. $5 + 1612 = 1617$.

Uth. ins $0 + 138 = 138$

1956.86. North side of Montgomery Pass, $\frac{1}{2}$ m. from summit, Mineral Co., Nevada VIII.17.1956. (R). Elev (ann - ch) 7100 ft

Lava stream slopes with open stands of juniper and piñon. Low cover sage, *Ephedra* and rabbit weed.

Only species of *O. seen* was the blue-winged Circotettix, which was local, but not numerous, preferably on the bare rough lava. Hard to secure as wind was strong through the pass.

Uth. $3 + 1617 = 1620$.

Uth. ins. $\text{V} + 138 = 138$

1956.87 6 mi E of Basalt, Esmeralda Co., Nevada VIII.17.1956. (R) Elev. (ann.) 5175 ft.

Gentle slopes of low fan of silt thickly covered with lava fragments & sand with shingle of same and other rocks. Mt. Miller immediately to the north.

Sole species of *O. sum* was the Trim.
taken. Two *sum*, one captured.

Orth. $1 + 1620 = 1621$.

Orth. *ins* $0 + 139 = 139$.

1956.88 Ramsey Well, 13 ms. S. of
Tonopah, Esmeralda Co., Nevada. VIII. 18, 1956.
(R.) Elev (ch) 4994 feet.

Silt flat covered with pavement of small
stones and gravel. Low Chad-scale and
Grayia?

Two *Hymenotettix* *sum*, 1 taken. One on
ground, lost in *Grayia*, the other one
beaten from latter.

Orth. $1 + 1621 = 1622$.

Orth. *Orth. ins* $0 + 139 = 139$

1956.89 3 ms N of Goldfield (at junction
of Alkali Springs road), Esmeralda Co.,
Nevada. VIII. 18, 1956. Elev (ch) 5420 ft.

An mosaic-like closely placed pavement
of small stones on silt. Plant cover open
stand of low sage, *Grayia* and a very
few *Ephedra*. [First tree yuccas here!]

Sole *O. sum*, the wonderfully protected
Trim taken.

Orth. $1 + 1622 = 1623$.

Orth. *ins* $0 + 139 = 139$.

1956.90 3 mo. S of Goldfield, Esmeralda
Co., Nevada VIII. 18. 1956 (R) Elev (ch. c
ann) 5700 feet.

Salt with heavy shrub but not quite mosaic proper.
Some dead oak, numerous Joshua trees (exten-
sive number examined without results)

At 0 seen, the two species taken.


Trim striae. Very few noticed, 2 taken

" gum-thick. All taken, all seen

$$\text{Cuth } 3 + 1623 = 1626$$

$$\text{Cuth in } 0 + 139 = 139$$

1956 91. Springdale, Nye Co, Nevada
VIII. 18. 1956. (R) Elev. (ch.) 3900 ft.

Salt grass  and tall grass in meadow of
saline incrustated ground.

✓ Paropromala numerous in grass, very active,
usually taken singly.

Melanoplus 7 ♀ all seen, in grass.

Two melanoploid swept in grass.

$$\text{Cuth } 45 + 1626 = 1671.$$

$$\text{Cuth in } 3 + 139 = 142.$$

1956.92 Death Valley between Hell Gate &
Salt Well, Inyo Co, California VIII 19. 1956.
(R) Elevation (to m) 2000 ft.

Typical sparse plant cover of Death
Valley detrital slopes. Coriller,

Atriplex hymenelytra and some scattered cacti (cholla type).

Boottia locally numerous in Covillea ads. - juvs.

Tamias 2 juvs swept from Covillea.

1 Hesperotettix swept from Covillea, was in net but lost!

Orth 21 + 1641 = 1662.

Orth no. 1 + 142 = 143.

1956. 93 ^{Not stop} Boundary Canyon, Amargosa Range, Inyo Co., Cal [a short distance above Hole-in-the-Rock Spring] VIII. 19, 1956. (R.)
Elev (b. m.) 3000 ft.

Covillea, Atriplex hymenelytra + usually sparse vegetation, dry and brittle, on stony surface of rough ramifying wash.

Boottia local in Covillea, ads. - juvs.

Hesperotettix 1 swept from Covillea.

~~Tamias~~ Insana covilliae 1 juv ditto.

Orth 9 + 1662 = 1671.

Orth no. 5 + 143 = 148.

1956.94 Daylight Spring, Amargosa Range,
Inyo Co, Cal VIII. 19, 1956 (R.). Elev. (v. m.)
4317 feet

In general Covillea area, but immediately at
spring several low trees and an area of tall
mud and grasses about the tiny runoff

Boottettia in Covillea.

Parabacillus swept from tall mud on
runoff

Trum pallidip. on stony surface.

Orth 6 + 1671 = 1677.

Other ins 3 + 148 = 151.

1956 95 Amargosa Desert 5 ms. WSW. of
Beatty, Inyo Co, Nevada VIII. 19, 1956. (R.)
Elev. (ch) 3200 feet

Typical Amargosa conditions dominated by
Covillea.

Everything taken swept from Covillea -
nothing seen in other plants or on ground
surface. No Orth. species lost.

Boottettia numerous, all taken adults

Ligurotettix 2 taken, all seen.

Encarna covilleae four adults taken, none
lost - note all 3 ♂♂ are juvenes, the single ♀

Orth. 13 + 1677 = 1690.

Other ins. 2 + 151 = 153.

Amarosa Desert
1956.96 1 m S. of Carrara, Nye Co., Nevada.
VIII 20, 1956. (R.). Elev. (ch.-an.) 3000 ft.

Nothing seen or taken except from Covillea.
Boottia locally numerous.

1 Insana covilleae taken beaten from
Covillea.

$$\text{Lith} \quad 23 + 1690 = 1713.$$

$$\text{Lith vis} \quad 1 + 153 = 154.$$

1956.97 5 ms. E & E. of Rathrop's Well,
Amarosa Desert, Nye Co., Nevada
VIII. 20, 1956. (R.). Elev (ch.-an.) 2875 ft.

Solely Boottia in Covillea. Most of
Covillea stunted, dried up and brownish.
Note amount of brown tone in Boottia.

$$\text{Lith} \quad 8 + 1713 = 1721.$$

$$\text{Lith vis} \quad 2 + 154 = 156.$$

1956.98 3 ms. E of Point of Rocks,
Nye Co., Nevada. VIII. 20, 1956. (R.)
Elev. (an.) 3550 ft.

Nothing except Boottia in Covillea.
Examined a number of Fraxinus
without results.

$$\text{Lith.} \quad 18 + 1721 = 1739.$$

$$\text{Lith vis.} \quad 0 + 156 = 156.$$

1956.99 11 mo SE. of Indian Springs, Clark
Co., Nevada. VIII 20. 1956. (R.) Elev. (ann.)
8350 ft.

Nothing except Boottellia, and the latter in
Covillea. Wind a steady gale, making it
almost impossible to handle a net.

Orth. 3 + 1739 = 1742.
Orth. no. 0 + 156 = 156,

1956.100 15 mo. NW. of Las Vegas [at junction
of Kyle Canyon road with U.S. 95], Clark Co., Nevada.
(Hw. 34)
VIII. 20, 1956 (R.) Elev. (ann.) 2775 ft.

Nothing but 1 Boottellia in Covillea. Nothing
else on ground surface.

Orth. 1 + 1742 = 1743.
Orth. no. 0 + 156 = 156.

1956.101 ^{Morgan Mesa} 5 mo. NE of Glendale, Clark Co.,
Nevada VIII 21, 1956 (R) Elev. (instrument)
1900 ft.

Loose silt on mesa with open stand of Covillea
and a low leafless grayish bush

Nothing but 1 Boottellia swept from Covillea.

Orth. 1 + 1743 = 1744
Orth. no. 0 + 156 = 156

1956. 102 Pink Sandhills, 2.5 ms SE of
Mt Carmel Junction, Kane Co., Utah. VIII. 22, 1956
(R.) Elev. (aner.) 6400 ft.

Juniper + piñon with ^{aphidid} sage on soft deep
pinkish sand

All O. saw the one specimen of Trimastix
sawed. Taken on bare sand.

$$\text{Length } 1 + 1744 = 1745$$

$$\text{Caterers } 0 + 156 = 156$$

1956. 103 5.5 ms. ESE of Fredonia,
Coconino Co., Arizona. VIII. 22, 1956.

(R) Elev. (aner.) 5775 ft

Patches of tall bunch grass, curly grass, Fremont
weed & sage on reddish sandy silt.

Little O, all seen taken.

Parabacillus swept from tall grass.

Opeia about the same com, and swept
from it.

Ageneotettix on bare gr, one taken all
seen

$$\text{Length } 5 + 1745 = 1750$$

$$\text{Caterers } 12 + 156 = 168$$

1956.104 No. slope of Kaibab Plateau, 17 ms.
SE. of Fredonia, Coconino Co, Arizona

VIII. 22, 1956 (R.) Elev (am) 6700 feet.

Very short curly grass on strong slope under open
stand of juniper, piñon and mountain
mahogany.

Cordillaria in the ^{small} intervals between the clumps
of short curly grass, no. lost in addition to those taken
Parabacillus rupt.

Juv. aridid all rupt.

Orth. $5 + 1750 = 1755$,

Orth. vis $0 + 168 = 168$.

1956.105 12.5 ms S of Jacob Lake,
Kaibab Plateau, Coconino Co., Ariz.

VIII. 23, 1956. (R.) Elev. (mch. am) 8475 feet.

In small glade in fir and aspen forest,
usually on broken stone, with light low
plant cover

No O. except Circot coconino, which
was in fair numbers, and not shy for
the genus

Orth. $6 + 1755 = 1761$.

Orth. vis. $1 + 168 = 169$.

1956. 106 So end of Pleasant Valley,
Kaibab Plateau, Coconino Co., Ariz VIII. 23. 1956.
(R.) Elev. (am. of instrument) 8300 ft.

Mtn. meadow of very short grass + low
meadow vegetation, surrounded by fir and
aspen.

Only *O. v.* was Trim. pistularia group
locally num. on low rocky knoll in
meadow. But moderately active.

$$\text{Lith. } 10 + 1761 = 1771.$$

$$\text{Other no. } 0 + 169 = 169.$$

1956. 107 V. T. Park, Kaibab Plateau,
28 ms. S. of Jacob Lake, Coconino Co.,
Ariz. VIII. 23, 1956 (R) Elev. 8400 ft.

Broad grassy mtn. meadow on
stony soil. No *O.* except 1 Circ.
coconino lost!!

$$\text{Lith. } 0 + 1771 = 1771.$$

$$\text{Other no. } 2 + 169 = 171.$$

1956. 108 T. V Park, Kaibab Plateau,

1 mi. N. of No. Entrance to Grand Canyon
Nat. Park, Coconino Co., Ariz. VIII. 23, 1956.
(R.) Elev 8800 feet.

[This is the general area where I took Bradypterus
in 1947, but none in evidence this time.]

See previous no. (1956 107) for conditions.

No O. except 1 Mel. bruneri &
juv. odipodids.

Orth. 4 $\div 1771 = 1775$.

Orth. inc 7 $+ 171 = 178$.

1956 109 East escarpment of Kaibab Plateau.
5.5 mi. E of Jacob Lake, Coconino Co.,
Ariz VIII. 24, 1956 (R) Elev (approx. of
instrument) 6300 feet.

Near lower edge of bull pine zone, sur-
face stony, lower com chiefly oaks.

Sole O. were the species taken.

Trin blue-winged, 3 seen, 2 taken.

Mel. bruneri type. 2 seen, 1 taken

Juv odipodids none.

Orth 6 $+ 1775 = 1781$

Orth. inc. 4 $+ 178 = 182$.

1956. 110 Vicinity of Elden Ranger Station
4.5 mi E. of Flagstaff, Coconino Co.,
Ariz (R.) VIII. 25, 1956 Elev (an. & ch.)
6900 feet.

Tall grass, Fumille weed and Rudbeckia
(latter in fr quantity in bloom), and areas
of very short grass.

All species of O. recognized were taken.

Amphispiza - Agelaius were particularly
in the short grass.

Many Melan. juv. about.

Parabaculus, a single one swept from grass.

Cordillaria local - not num. Very active.

Amphispiza numerous, as above.

Agelaius ^{ph. W.} not num, as above.

Phalaropus local.

Aspiza ponderosa no. seen, 1 taken.

Melanophus 2 species adult, both taken.

" juv. abundant.

Circus 1 swept.

Orth. 55 + 1781 = 1836

Orth. no. 8 + 182 = 190

1956. 111 About 1 m. NE. of E. foot of
Elden Mtn., 6 ms. NE of Flagstaff,
Coconino Co., Arizona VIII. 25, 1956. (R.)
Elev. (ch. - instruments.) 6925 feet

Tall grass, Rudbeckia, rabbit weed, etc.,
under open pine. Many ^{small} areas of
exposed or partly exposed reddish gravel.
Amphitomus ^{All species of C. nupta were taken} not common

Agrenotellus Th. w. In fair nos. - very active, more
Arphia pseudonictans ^{on lower spots.} 2 seen, both taken.
Neopentatella sp. ♂ 1 swept.

Mel. sp. juv. common.

" sp. very small - andrus like. 1 ♂, 1 ♀
taken

" sp. medium. 1 ♂ taken

" large 1 ♂ taken

Oecanthus - 1 swept

Mastobryza platterii type. Local & only
on lower spots. Not at all shy.

Orth. 28 + 1836 = 1864.

Orth. vis 0 + 190 = 190

1956. 112 Fort Valley, SW. of
San Francisco Peaks, Coconino Co.,
Ariz. VIII. 25, 1956. (R.) Elev. (an. +
ch.) 7400 feet.

In open spots of pine forest (tall pine
+ another species with blackish bark,
none of latter) on ground littered with
dead pine needles + cones, and with
tufts of grass.

All species of *C. neogu.* were taken.

Mel. large th. w. species. 1 ♀ seen + taken.

Careful search failed to bring any more
to light.

Mel. fuscum-nigrum local and scarce
Almost all seen taken - 3 of each sex.

Mel. small species. A single male taken.

Orth. 8 + 1864 = 1872.

Orth. ins. 6 + 190 = 196

1956. 113 1/2 m. S.E. of Station 1956. 112
Elev. (t. m.) 7369 feet. VIII. 25, 1956
(R.)

Mountain meadow of tall bunch
grass and much short grass on
gravelly silt.

1956. 113 (cont.)

All species of *O. recogn.* were taken.

Tall grass held little; most everything taken was in short grass areas.

Amphitomus minimus.

Ageneotettix th.w. on the bare spots.

Uphya ponderosa, a few seen, 2 taken
Chrysot. Carolina 1 seen or so seen. 1 taken,
on abandoned roadway

Mel long-winged 1 female ♀ taken.

" funer- ignis a few seen, 3 taken

" sp. ? (th w) 1 ♀ taken.

Orth. $26 + 1864 = 1890$.

Orth. ins. $1 + 196 = 197$.

1956. 114 Grasshopper Flat, Yavapai Co,
(3 ms W of Sedona), Arizona VIII 26. 1956
(R) Elev (ch) 4400 feet

Bare red silt and tall grassy brushy grass

All *O. recogn.* taken.

Cardellanus, on silt

Conozon, on silt.

Orth. $4 + 1890 = 1894$

Orth. ins. $3 + 197 = 200$.

1956 115 Upper Yaeger Canyon below
Mingus Mtn^{road} Summit, Yavapai Co., Arizona
VII. 26. 1956 (R.) Elev (ch.) 6450 ft.

Narrow shelf in canyon - work
difficult. Under pine, piñon & oak.

All species of *O.* recognized taken

Agrostotettix in that common broken stones
Hisarotena car. roadside 2 taken, 3 or
4 others seen

Trinervetropis blue-wing. A few on broken
stone area - 2 taken

Med long-winged 1 ♀ taken, all seen
" sh.-winged. 1 ♀ ^{in grass} All seen
in grass.

Orth

$$10 + 1894 = 1904.$$

$$\text{Orth ins.} - 7 + 200 = 207.$$

1956 116 Lonesome Valley, 10 ms. NE.
of Yaeger, Yavapai Co., Arizona.
VII. 26. 1956. (R.) Elev (ch.) 5300 ft.

Open short grass range on reddish
silt. ~~to~~ Virtually overrun with
hoppers, the larger part immature.

Wind very high. Seriously hampered work.
As far as ascertainable I reared all
species of *O.* which were adult.

Boopodon in swarms. Males more numerous than ♀♀ & very active. Note the relatively long wings of some of the ♀♀, which could fly for some yards.

Alrepanopterna 1 ♂ taken, all unrecognized in the swarms of juvs.

Asphid sp. 1 juv. taken

Trachyrhachis not partic. numerous, ? taken. On silt.

Trin melanoptera Numerous & very active. On silt Carried long distances by wind.

Mel. luteus Sw. Adults - only adt Mel. luteus.

Brachystola a number, but all seen taken. In the low ground com. Some taken } are in instar preceding maturity.
Some adults. General

Other ins 51 + 1904 = 1955.
0 + 207 = 207

1956. 117 1 m. SW of Wilhoit, Yavapai
Co., Arizona. VIII. 26. 1956. (R.).

Elev. circa 4000 ft Wind exceedingly
strong.

All Q. clearly recognizable. none taken.
Work was all roadside.

Conosia carinata A few, but not num. 3 Taken

Trachyphala A few, 1 taken.

Orth. 4 + 1955 = 1959.

Orth. ins. 0 + 207 = 207.

1956. 118 3 ms S. of Congress Junction,
Yavapai Co., Arizona. VIII 26. 1956.
(R.) Elev. (ch) 2825 feet.

Roadside, Fall ^{brush} grass, scattered acacia
and bare sandy silt. All spec. Q.
recognized were taken Many juv.
Melanophus.

Trimastix pallid. 1 seen - Taken.

✓ Paropromela 1 ♀ taken from brush grass.

Mel. lachrymosus 1 ♂, 1 ♀ Taken from tangled
low com.

Orth. 8 + 1959 = 1967.

Orth. ins. 4 + 207 = 211.

1956. 119 1.5 mo. SE. of Morristown,
Maricopa Co., Arizona. VIII. 27, 1956. (R.)
Elev. (am.) 1858 ft.

Thin short grass on gravel, with open fallen
cones of Covillea, + cholla, pale verde, Koebe-
linia, etc.

No O. except 1 Rehmita in ground. Nothing
found in Covillea.

Orth. 1 + 1967 = 1968.

Orth. no. 1 + ~~200~~ 211 = 212.

1956. 120 2 mo. SE. of Apache Junction,
Pinal Co., Arizona. VIII. 27, 1956. (R.) Elev.
(am.) 1475 ft.

Covillea, pale verde, etc. on strong surface.
Nothing in O. found except 1 Bortettia
in Covillea.

Orth. 1 + 1968 = 1969.

Orth. no. 0 + 212 = 212.

1956. 121 1 m. E. of Thompson, Pinal Co.,
Arizona. VIII. 27, 1956 (R.) Elev. (am.) 2450 ft.
Lower bajada vegetation - pale verde,
cut claw, some cholla + saguaro, Cochulinia,
etc.

All species of O. recognized taken.

Neopenthetix locally num. in very dry vegetation,
not rabbit used.

Melan. juv 1 swept.
Podoceros 1 juv on ground. All seen.
Herotomus 1 juv. " " - all seen.
Cycloptilum 1 swept from Covillea.
Aeth. 11 + 1969 = 1980.
Aeth. ins. 0 + 212 = 212.

1956. 122 Summit of road pass of Pinal
Mts, betw. Superior + Miami, Pinal - Gila
Cos., Ariz. VIII. 27, 1956. (R.) Elev. (ch) 4190
feet.

No Q. at all!

1 sole leaf hopper taken!

Aeth. 0 + 1980 = 1980.

Aeth. ins. 1 + 212 = 213

1956. 123 Betw. Globe and Cutter, Gila
Co., Arizona. VIII 28, 1956. (R.) Elev. (an.)
3250 feet.

Very short grass on sandy + stony silt
with scattered rabbit weed - mesquite.

All species of Q. recognized were taken.

Podoceros a few, 3 taken, very active.

Herotomus only the one taken seen.

Rebriata ditto

Aeth. 6 + 1980 = 1986.

Aeth. ins. 1 + 213 = 214

1956 124 7ms SE. of Cutter, Gila Co,
Arizona. VIII 28, 1956 (R) Elev. (an.)
4100 ft.

Tall grass, particularly along a shallow
wash, acacia, Notonia, thin oak and a little
cholla. Soil strong silt.

All species of B. recognized were taken.

Parapimpla 1 ad. mpt.
Amphitomus 1 taken, mpt, all seen.

Psolocassa a fair number, but very active - 1 taken.

Coryza carin 2 ad. - 1 juv. taken, one found.

Trim. Stemma type. 1 taken, all seen.

Cibolasis 1 taken, all seen, on ^{near by} strong silt.

Paropomala 17, 24 mpt from tall grass.

Leucanthus 1 mpt from thin oak.

Orth. 15 + 1986 = 2001.

Other ins 2 + 214 = 216.

1956 125 6ms SE of Coolidge Ham, Pinal
Co., Arizona. VIII 28, 1956. (R.) Elev. (altim.)
2500 ft.

Croilla on granully ~~sp~~ silt.

Nothing in Croilla but juv. Melanophus

Trim on silt surface

Orth. 4 + 2001 = 2005.

Other ins. 0 + 216 = 216.

1956. 126 6 ms. S. of Safford,
Graham Co., Arizona. VIII. 28, 1956. (R.)

Elev. (instrument) 3100 feet.

On one side sand and sandy silt
with a varied open cover. Nothing there
except 1 Trepidulus on ground. On
other side acacia + Covillea. No Bruttia,
but 3 immat. Rhabdosomatites taken
from Covillea.

Orth. 4 + 2005 = 2009.

Orth. ins. 1 + 216 = 217.

1956. ~~128~~ 127 19 ms. S. of Safford,
Graham Co., Arizona. VIII. 28, 1956.

(R.) Elev. (altim) 4100 ft.

Short grass and some tall bunchgrass,
Notula, acacia, cholla, etc. on stony
silt.

Only 1 seen Trin. strema taken
on silt surface.

Orth. 1 + 2009 = 2010.

Orth. ins. 1 + 217 = 218.

1956. 128 7.5 ms. SE of Bowie,
Cochise Co, Arizona. Aug 29, 1956
(R.). Elev (inst.) 3475 feet.

Bare sandy silt in most spots - nothing
in it in way of lith.

None or dry wash Covillea + black brush. No
Bostettia or Gomphon. In Covillea juv.
Eusma covillea + juv. + adult (?) of
Rhabdocratites. Cycloptilum swept from
black brush.

Lith. 40 + 2010 = 2020.
Uther vis. 1 + 218 = 219.

1956. 129 10 ms E. of San Simon,
Cochise Co, Ariz. (Just W of N. M line.)
VIII. 29, 1956. (R) Elev. (inst. am.) 3900 ft.

Sloping brush with Covillea, black brush +
again in washes. No O. at all etc!
juv. Rhabdocratites swept from Covillea +
1 juv. Mel from same.

Lith 2 + 2020 = 2022.
Uther vis. 0 + 219 = 219.

1956. 130 4.5 ms. S. of Road junction
E. of Steins, Hidalgo Co., New Mexico.
VIII. 29, 1956 (R). Elev. (am. of auto).
4200 feet.

gentle intrash slopes of Piloncillo
Mts. Coillea almost entirely -

No O at all ex. 2 juv Drosophila coillea
in Coillea.

Orth. 2 + 2022 = 2024,

Orth. in 1 + 219 = 220.

1956. 131 - Northern Research Station,
Can Creek Canyon, Chiricahua Mts,
Cochise Co., Ariz. VIII. 30, 1956. (R.)
Elev. (l.m.) 5400-5600 ft.

Up the canyon floor for 1/2 m above
station. Corn (juviper of 2 species) and
various oaks, a few pines. Ground
broken stone & strong silt, with patches
of grass & weeds, a few Opuntia (pr.
pear) & low agave.

All species of C. margin were taken.
Syrphula fuscicornis 1 ♀, all seen, under
oaks on ground.

Tomonotus ferrugineus a single ♀,
all seen was taken on ground under oaks
West but one leg. No others noticed.

1956. 131 (cont.).

Helioctes benjamini 1♂ 1♀ taken separately
on more strong spots.

Trim. sp.? Two seen, 1 taken, in same
fungal area.

Trachyschelus sp. juv. unsp.
Conallaca thompsonii 1♀, near grasses,
not under oaks, all on

C. huachuana 1♂, 1♀, taken sep., among
dead oak leaves on ground under oaks.

Psolocera, a number seen, very active,
one taken.

Mel. spp. Numerous juvs.

Orth. 19 + 2024 = 2043.

Other ins. 12 + 220 = 232, ✓

1956. 132. Same data as 1956 131
except elev. is 5400 feet only. Above the
canyon floor for about 1/2 mi. Conditions
much the same, but little mat. adult.

All species of O. margin taken etc.

1 Grassiniops last running on ground.

Orth 14 + 2043 = 2057.

Other ins 7 + 232 = 239. ✓

1956.133 Southwestern Research Station,
Carr Creek Canyon, Chiricahua Mts.,
Cochise Co., Ariz. VIII. 29. 1956.

(Montezuma) At night about station
(6. m. 5400 ft) in cracks of stone walls
& fences, etc.

Centrophilus & Noplophrys
Noplophrys.

$$\text{Orth. } 25 + 2057 = 2082.$$

$$\text{Ortho ins. } 0 + 239 = 239.$$

1956.134 Same data as 1956.133
except date is VIII. 30. 1956 (M. Cazier).

Centrophilus, Noplophrys,
Lygus & juv. Melanophus.

$$\text{Orth. } 9 + 2082 = 2091.$$

$$\text{Ortho ins } 11 + 239 = 250.$$

1956 135. Same data as 1956 131
but VIII. 31, 1956 (R)

Nothing seen exc. these two Coccinellids.

$$\text{Orth. } 3 + 2091 = 2094.$$

$$\text{Ortho ins. } 0 + 239 = 239$$

1906. 136 ^{So.} ~~South~~ Fork of Carr Creek, 5 ms.
above Southernmost Research Station, Chiricahua
Mts, Cochise Co., Ariz. VIII. 31. 1906. (R.)

Elev. 6000 ft.

Heliaetus benjamini on rocks alongside
of road, but no mark!

Orth. 2 + 2094 = 2096.

Orth. in. 0 + 239 = 239.

1906. 137 Barfoot, Chiricahua Mts, Cochise
Co., Ariz. VIII. 31. 1906. (R.)

Elev 8200 feet. [with William George - Ellen
Ordway]

Mountain meadows of tall grass with
lupine, some mullen & numerous other
plants, some bare relatively dry meadow
much, surrounded by heavy forest of pine
(w. species), oak, hill pine, fir and some
little aspen. Close to the top of the range.

Chorthippus locally numerous in the grassy
portion of the meadow.

Trimerotropis red-legged. Generally numerous,
active.

Melanophus of regalis type - brilliantly colored.

Plumbeous, long-winged. Numerous, general
but less frequent in tall grass, very active.

Melan. trachypterus red-legged. 10 taken
all recognized.

Melan. brachypterus blue legged. Relatively
numerous, more largely in grass areas.

Length. $65 + 2096 = 2161$.

Wing area. $17 + 239 = 256$.

1956 138 Southwestern Research Station,
South Fork Can Creek, Chiricahua Mts,
Cochise Co., Arizona. IX. 1, 1956 (R.)

Elev (b.m.) ≈ 5400 ft.

Attn Station.

In meadowy and boggy spots, partly shaded,
with short grass and low growth ^{of willows}, tall corn
sycamores chiefly and a loose story of other
shrubs. Ground in places damp and almost
muddy, appar. from underflow from spring
or occasional wash by rain.

Everything more or less taken. Tettigidae
abundant in spots, but largely immature.
What is apparently Clypeotettix schubertii predomi-
nated, although some ^{or all} may be forms of Paratettix. It
was more general than Tettigidea.

Tettigidea was more local, in the damper
areas, and those more fully shaded. Few
adults.

Melanoplus of the beautiful regalis type,
1 ad. ♂ and apparently a number
of juvs. In the meadowy areas.

1 juv melanoplid with deep maroon tibiae, ^{what?}

1956.138 (cont.)

Ellyia a few, swept in with tetragnid

Orth. $150 + 2161 = 2311$.

Orth. ins. $15 + 256 = 271$.

1956.139 Same data as 1956.132 except
date is 1X 1, 1956.

Very few adults, all seen taken.

Protoparce 1♀.

Syrphula pus contulata 1 ad. ♂ + 1 juv. Under
oaks and junipers.

Phygadeuon 1♀ no among rocks on stony
hill slope.

Conalcaea huachuensis. 1♂, 1♀, taken in
corte, under oaks.

Mel juv. Apparently of a number of
species.

Orth. $19 + 2311 = 2330$.

Orth. ins. $34 + 271 = 305$.

1956.140 Southwestern Research Station,

South Oak Can Creek, Chiricahua Mts,

Cochise Co., Ariz 1X 2, 1956. (R.)

Elev (b.m.) 5400 ft.

Immediate down canyon from
station in meadow and grassy spots

along the perennial stream of Carr Creek.

Panattix apparently, few adults, numerous in the whole very restricted area

Tettigidea 1 ad. ♂ taken at same time.

Discosternia carolina, 1 ♀ taken on dry cleared place near laboratory.

Helicostes benjamini - num. chiefly on tree rock bordering stream course, 13 taken.

See juv. melanophthalma next.

Elliptic Orth. 1 next with Tettigidea.
 $44 + 2330 = 2374$.

Other ins. 9 + 305 = 314. ✓

1956.141 Same data as 1956.131
except 1X.2.1956.

Very, very little. 1 Hel. benjamini
seen - lost.

Conalanea huachuana (several)
1 ♀ taken among
dead thin oak leaves on the ground. Several
others seen - lost. Once lost they are almost
never relocated, why is the mystery. I believe
they hide in the quantities of dead dry leaves.

Orth. 1 + 2374 = 2375.

Other ins. 4 + 314 = 318 ✓

1956. 142 As 1956 133 but IX. 2. 1956.
(Mt Cuzin).

Certhrophulus 2 or 3 species (1 ♂ is apparently
valgus or related.

Hoplosphyrum 1 ♂, 3 ♀.

Catch 16 + 2375 = 2391.

Other ins. 24 + 318 = 342 ✓

1956 143 As 1956 138 but IX. 3. 1956 (R.).

Tettigidea 1 ad. - a number of juvs. As
previously it was found only in the
dampers, and usually more shaded spots.

Paratettix, more generally as yet predomina-
tingly immature.

Chlorosternia carolina 1 ♀ Taken in sunny spot.
Mel. juv. Scattered.

Catch. 59 + 2391 = 2450.

Other ins. 14 + 342 = 356, ✓

1956. 144 As 1956. 132 exc. date is
IX. 3. 1956.

Aphid juv. 1, all seen, under oaks.

Congra carinata. 1 ad. in nearly bare
spot right at station.

Mel. decoloratus 3 ♂, all adults located
in nearly two hours work. Apparently
many immatures of this.

Orth. $8 + 2450 = 2458$.
Other ins. $16 + 356 = 372$. ✓

1956. 145 As 1956. 133 but IX. 3. 1956.
(Mount Cazier)

Orth. $16 + 2458 = 2474$.
Other ins. $6 + 372 = 378$. ✓

1956 146 Rustler Park, Chiricahua
Mts., Cochise Co., Ariz. IX. 4. 1956.
(Mount Cazier - J. A. G. R.). Elev. (B.M.) 6500 ft.
In fir and pine forest, with several spots
with springs & seeps, often with considerable
vegetation, again bare gravel.

Trim pallidus. 1 on bare ground.

" blue-winged Wren on rock slopes along
road cut.

Trim red-legged. On bare ground & among
shrubs.

Trachyrhynchus etc on gravelly area.

Melanophus long-winged species. Numerous.

" regalis type. 1 ♂ - 1 ♀ all seen.

" Th. w. species small 1 ♂

" " " large 2 ♂.

Melanoploid sp. - sp. ? 1 juv. in com. all seen

1956. 146 (cont.).

Stenopelmatus sp. 1 under stones. This is adult male - full of sperm.
Certhopneustes. 3 specimens, under stones.

Catch. $62 + 2474 = 2536$.

Other in. $18 + 378 = 396$.

1956. 147 Below Ruether Park, Chincahu
Mts., Cochise Co., Ariz. 1X. 4. 1956.

[Montezuma - J. R.] Elev. (ex M.C.) 8200-8300 ft.

Conditions much as 1956 146 except
there was no running water, nor supo.

Trin. red-legged. Moderately numerous.

Mel. long-winged species. Common.

" Th. w. sp. small. Numerous.

" " " larger (looks like a Conabasis)
local and hard to catch.

Cyphus juv. a few.

Catch. $80 + 2536 = 2616$.

Other in. $4 + 396 = 400$.

1956. 148 Same data as 1956. 132 but
1X. 5. 1956.

Tettigidea juv. taken with Paratettix.
Paratettix numerous in the damp spots,
but not especially at water's edge, as was true
of Ellipses. The first may. not adult as yet.

Ellipses abundant, close to water. Chiefly immature.
Microsternus in bare soil near station.

Helicostoma on stones ^{near} stream bed.

Mel. juv. swept in grass - under. Large beetle
diag. at steps of laboratory.
Orth. 77 + 2616 = 2693.
Other in 7 + 400 = 407. ✓

1956 149 As 1956.32 but date is
IX. V. 1956 and elevation is 0200-0400 ft.

Almost nothing adult. Rarely under rocks.
1 ♀ Hydrula fuscicollata - 1 ♂ juv.

Mel. prob. desultorius all same - future.

Hum. Mel. juv. ✓

Orth. 2 + 2693 = 2695.

Other in. 4 + 407 = 411.

1956.150 Southwestern Research Station,
Chiricahua Mts., Cochise Co., Ariz.

* IX. V. 1956. Heterid at night
along side of swimming pool.

Orth 1 + 2695 = 2696

Other in. 0 + 411 = 411

1956.151 As 1956.138 but IX. 6. 1956.

Buggy - grassy spots under ~~bed and~~
dense stand of ^{low} willows, on shaded
stream channels.

Chironomus on lower spots.

Cumacea on car at station

1956. 151 (cont.)

~~Paratettix~~ & ~~Tettigidea~~ as previously taken.
Adult Tettigidea juv. in both fauna pins.
greatly outnumbered adults.

$$\text{Orth. } 117 + 2696 = 2813$$

$$\text{Orth. vis. } 14 + 411 = 425, \quad \checkmark$$

1956. 152 Can Creek Canyon above Southwestern
Research Station, Chiricahua Mts, Cochise Co.,
Ariz. 1X. 6. 1956. Elev 6150 feet (approx.).
In tall grass now on lower slopes under
oaks, juniper & some pine. Very little.

Trim. red-legged. About five seen, two
taken, no stringer found.

Mel. deserticus n. sp. Two seen -

Taken. 1 juv apparently this, also taken.
1 Conal caea huachucae seen - lost

$$\text{Orth. } 5 + 2813 = 2818$$

$$\text{Orth. vis. } 2 + 425 = 427, \quad \checkmark$$

1956. 153 Southwestern Research Station,
Chiricahua Mts, Cochise Co., Ariz 1X 7. 1956.
Elev (b.m.) 5400 ft. (R.) In grounds
of Station at laboratory.

Chrysostoma carolinense 1 in mud.

Trachytachina 1 on tree trunk.

Mel. sp. ? 1 adult - juv.

Mel. prob. diff. 1 juv.

Orth 6 + 2818 = 2824.
Other ins. 0 + 427 = 427.

1956. 154 Vic of Smithsonian Research

Station, Chumohua Mts., Cochise Co., Ariz

1x 7. 1956. (R.) Elev. (b.m.) 5400 ft.

Small pasture along Carr Creek immediately below
the station. Wet sand bars, damp grassy spots
with some clover and adjacent dry slopes with
scattered tall grass under good stand of oaks
& juniper.

Paratettix in damp grass.

~~Heliothis~~ Heliothis a few on drier spots.

Mel. sp. on the drier slopes, a limited
number adults.

Colletes num. on sand bars particularly.

Orth. 53 + 2824 = 2877.

Other ins. 12 + 427 = 439.

1956 155 As 1956. 131 but 1x.7 1956.

Work almost entirely (as far as results were
concerned) done in the large dry wash of
one of Carr Creek channels, or on the brush
just above this wash. Clearcast, or. spitting
rain.

Immature Pteronotus very small, swept from ^{dead} oak leaves
on brush above wash.

Heliothis benjamini, local. apparently in small

1956. 155 (cont.)

colonies in rocks in wash and on stony and gravelly surface of bank above the wash. Two pairs were mated when captured.

Conalanea tuahurua 1D, 1♀ Taken not far apart among dead oak leaves and fungi on bank of wash. The male, when pursued, hid in among the dead oak leaves.

Arct. 18 + 2874 = 2892. ✓
Other ins. 4 + 439 = 443.

1956. 156 3 mi N.E. of Douglas, Cochise Co., Ariz.
IX 7. 1956 (John Gordon Anderson.)

Elev. (check on chart) Along highway.
Elev. 4500 feet.

Tamias, 1 ad - 2 immat.

Arct. 3 + 2892 = 2895
Other ins 0 + 443 = 443.

1956. 157 Also 1956. 131 but IX. & 1956. (R.)

Work done a little more extensively, covering area of boggy swamp from spring overflow.

Paratettix num. but largely juv.

Tettigidea in fair num. localized in the wetter spots, but only two taken were adults.

Colletes local.

Mel. juv. 1 kept.

Arct. 65 + 2895 = 2960

Other ins. 14 + 443 = 457.

1956. 158 Fort Huachuca Research Station,
Chiricahua Mts., Cochise Co., Ariz. IX. 8. 1956.

(HWR.) In house. 1 Certhophylus.

Certh. 1 + 2960 = 2961.

Other ins. 0 + 457 = 457.

1956 159 As 1956 131 but IX. 9. 1956. (R.)
Work done chiefly in ^{dry} wash and in pockets
of dead oak leaves, twigs - branches under
oak, juniper, rock walnut, etc.

Trin blue legged - blue winged. 1 ♀, all seen,
taken on boulders in dry wash at about 5500 ft.

Helicostus benjamini local, in small
colonies, on boulders in wash or on hog-backs
with sand & boulders between the ramifying
channels of the wash. A number taken
from ^{branches full of eggs.} Conalaca benjamini ^{oak} very local in scattered

colonies among dead leaves, or more
rarely branches. Exceedingly agile, and
once missed usually tumbling in eluding
capture by diving into deep masses of dead
leaves or piles of intertwined dead twigs
or branches. Some taken were female.

Certh. 31 + 2961 = 2992.

Other ins. 20 + 457 = 477.

1956. 160 As 1956. 140 but 1x. 9. 1956.

Paratettix in short grass and along
creek on slope. No Tettigidea seen.

Helastus benjamini A few in more
stony areas.

Trux red-legged. A single ♀ in stony
area.

Conalaca huachucae A few about
piths of dead oak leaves and twigs and
branches. As common as ♀ seen. Two
♀♀ taken.

Hebertia a few on bare ground prot.
♂ taken.

Stegmantis lineata - 1 ♀ swept
from a flowering composite.

Callipes in numbers on wet mud along
creek with.

Orth. 49 + 2992 = 3041.

Orth. no. 8 + 477 = 485.

1956. 161 Southwestern Research
Station, Can Aish Canyon, Chiricahua
Mts., Cochise Co., Ariz. 1x. 9. 1956.
(Montezuma.)

In crevices of walls and similar
places at night.

Anthrophilus, Stenopelmatus (1) = Nephtodaphnum (1)
 Both. $15 + 3041 = 3056$.
 Other ins. $93 + 485 = 578$, ✓

195 to 162 Mouth of Carr Gulch Canyon,
 1/2 m. above Portal, Chiricahua Mts,
 Cochise Co., Ariz. 18.10.1916. (R.)
 Elev (ch.) 4800 ft.

On gently sloping and broad outwash
 fan of canyons, with many bare areas of
 gravel - small stones, ^{and} dotted with relatively
 low clumps of mesquite and an open
 stand of bunch grass (latter in large part
 semi-cured).

Heterocentria 1 ♂ (th. co.) running in grass.
Chaphnomura (Fernal) 1 ♂ kept from bunch grass.

Proctos a few adults, 1 taken, on gr.

Trachydactylus not num. but present as
 adults & juvs. On gr.

Rehmita a few, in grassier areas. 38 taken. - 1 juv.

Cibolensis a few, ads. - juvs. On bare areas.

Trim. struma type, few, 1 ad. - 1 juv. Taken.

Mel. sp 1 juv. - all seen.

Hectylostrum 1 juv. Taken, all seen.

Arctocera 1 juv. kept from bunch grass.

Both. $23 + 3056 = 3079$.

Other ins. $0 + 578 = 578$.

1956 163 Canyon of South Fork of Carr Creek,
Chiricahua Mts., Cochise Co., Ariz. IX. 10. 1956.
(R.) Elev. (ch) 5400 ft.

About $\frac{1}{2}$ above junction with road up to
S.W.R.L. + on up to range crossing.

Oak, juniper + ^{and very few pines,} sycamore, on strong, dry
wash with small area of nearly level
but strong surface with oak scrub. Undergr.
dense with few open spots, these with some
brush grass. Surface largely carpeted with
dead oak leaves.

Blaphemura 1 juv. rupt, appar. from
brush grass.

Conalaca huachuana. A few on oak
leaves. 2 ♂, 1 ♀ Taken.

Mel. sp. (Ph. w.) 1 ♀ Taken, unprepared,
all seen.

Oecanthus 1 ♂ (green) + 1 ♀ (brown) - I do
not think this is any species not already known
from U.S. Both rupt from brush grass.

Orth. 7 + 3079 = 3086.

Other ins. 5 + 578 = 583.

1956. 164 As 1956. 133 but IX. 9. 1956
+ coll. Colton Parkway.

All Ceratomyza.

Orth. 5 + 3086 = 3091

Other ins. 0 + 583 = 583.

1956. 165 As 1956. 138 but
1x. 10. 1956. (R.)

Conditions the same.

Paratettix. Quite numerous, chiefly
immature, more frequent in the meadowy
areas than the pinyon.

Tettigidea. Locally numerous, usually
with Paratettix, but only in the more
moist sections. No adults taken.

Ellipes a few.

Orth. $80 + 3091 = 3171$.

Orth. no. $4 + 583 = 587$.

1956. 166 Southwestern Research Station,
Can Creek Canyon, Chiricahua Mts,
Cochise Co., Ariz. 1x. 10. 1956 Elev. (b.m.)
5400 ft.

All these Ellipes Ordwayi;
phacoid M. Cazier. Night work.

Parabrachius ^{walking} at swimming pool. Monstrated
Paratettix ^{damaged} crucis at apt pool. catalpa.

Blissodesmia day times attracted to light.

Mel. diff. 1♀ ditto.

Conalcaea ^{to w.} brachulana 1♀ ditto.

Noplophyrus 1♀ ditto.

Orth. $24 + 3171 = 3195$

Orth. no. $2 + 587 = 589$.

1956.167 As 1956.131 but IX.11, 1956. (R.)

Yuccinia 1 ad. running as ground under oaks.

Helictes benjamini a few - not numerous in the usual situations

Conallaca brachysoma about 8 seen,

4 Taken - 3 ♀, 1 ♂. Very local and always near oak leaves - tremendous jumper.

With. 8 + 3195 = 3203.

Other inv. 10 + 589 = 599. ✓

1956.168 As 1956.154 but IX.11, 1956. (R.)

Helicosternus carolinia a few, 2 Taken. ⁵⁴⁰⁰

Helictes benjamini few seen, 2 Taken

Mel. th.w. species. A number adults,

juvs. common. On grassy areas back from the stream among or near the oak & related cover.

Paratettix few adults - many juvs. on sand bars in grass along water.

With. 36 + 3203 = 3239.

Other inv. 4 + 599 = 603. ✓

1956.169 As 1956 131 but IX.12, 1956. (R.)

Helictes benjamini local, on sandy spots

as well as on boulder.

Conalaea huachucae also local,
but almost always on or very near dead
oak leaves. As shown as seen,
each one a specific stalk. Secured all
seen but two (i.e. 7 of 9).

Mel. H. - w. species Annual adults, in
prairie spots

$$\text{Cuth.} \quad 14 + 3239 = 3253.$$

$$\text{Other vis.} \quad 2 + 603 = 605.$$

1956. 170 Smithsonian Research Station,
Carr Creek Canyon, Chiricahua Mts.,
Cochise Co., Ariz. IX. 11, 1956. (M.
Cazier)

17 Stagmomantis on tall composite.

$$\text{Cuth.} \quad 1 + 3258 = 3259$$

$$\text{Other vis.} \quad 0 + 605 = 605$$

1956. 171 Same as 1956. 170 but
IX. 12. 1956. (R.).

14 Stagmomantis on weeds at Station.

$$\text{Cuth.} \quad 1 + 3259 = 3260$$

$$\text{Other vis.} \quad 0 + 600 = 600$$

1956. 172 As 1956. 138 but IX. 12. 1956.
(R.)

Tethigides nummulus left local, but 4 adults taken.
the remainder chiefly in earlier preceding
maturity.

Paratethis numm., part adult, part immat.

Helicostes benjamini 1 on sandy spot.

Orth 62 + 3255 = 3317.

Orth via 9 + 605 = 612.

1956. 173 As 1956. 170 but IX. 12. 1956.
(M. Casier). About Station.

Syrphula fuscicornellata 1♂, 1♀

Trachyphachus orth numm.

Helicostes benjamini orth numm.

Trimerotropis red-tipped, 1♀.

Corozoa carinata a few.

Canaleana humboldtiana orth numm.

Mel. Ph. w. considerable series of adults.

Photulistes 1 ad. Plum winged.

Orth. 64 + 3317 = 3381

Orth via. 13 + 612 = 625.

1956. 174 As 1956. 138 but IX. 12,

1956. (Ellen Ordway)

Paratethis + Tethigides (227 adult).

Orth. 72 + 3381 = 3453

Orth via. 0 + 625 = 625

1956.175 US 80 crossing of Peloncillo
Mts, 19 ms. N. of Rodas, Hidalgo Co., N.M.

IX.13.1956. (R.) Elev (am. of instrument)

4200 ft.

Patches of brush grass and masses of
yellow-flowered composites among mesquite
mats, acacia, ~~also~~ Nolina, yucca, nopal & cholla.
with num. bare areas of stony ground.

In addition to those taken I had 1 ♀
Acanthodes in net, but lost it. Recognition,
common, as a prairie.

Trin pallidip. on silt.

" strana type, ditto.

Mel. N. w. beaten.

Conakasa tymphysii in a tall rather fleshy
yellow-flowered composite - all seen.

✓ Paropomala in brush grass.

Utter 6 + 3453 = 3459.

Utter in. 7 + 625 = 632.

1956.176 Continental Divide, 1 m. E.
of Luper, Grant Co., N.M. IX.13.1956.

(R.) Elev. (b.m.) 4585 ft.

On one side loose silt and gravel on
behind adobe with almost nothing on it, but

1956. 176 (cont.)

Scattered depauperate black brush - Two adult Goniatus all taken here, and it: on the other side small area of tangled long grass, some acacia and bushy composites and some black brush (1 juv. Goniatus in this latter).

All material other than the two adult Goniatus taken in the second area.

Parabasilus 1 in tall grass.

Apeia juv only, rupt.

Goniatus, as above, all seen.

✓ Paropromela juv. ♂ + ♀ rupt from grass.

Mel. juv. rupt.

Orth. 11 + 3459 = 3470.

Orth. ins. 6 + 632 = 638. ✓

1956. 177 13.5 mo. W. of Helsing, Luna Co.,
N.M. 1x. 13. 1956. (R.) Elev. (am.) 4075 ft.

Roadside heavy brush grass, sphydras, etc.

Everything taken from first mentioned.

Many ^{very} juv Melanophus.

Parabasilus 1 ♀ pinkish

✓ Paropromela 1 ♂, 1 ♀.

Mel ♂. 10 1 ad. ♀

Orth. 4 + 3470 = 3474.

Orth. ins. 4 + 638 = 642.

1956 178 3 ms. E. of Heming (12m. N.
of N base of Little Florida Mts.), Luna Co.,
N. M. IX. 14, 1956 (R.) Elev. (an.)
4160 feet.

Covillea on low bush All Q. taken were
secured from it

Nothing seen on ground surface.

Stagnomantis 1 ♀ swept from Covillea.
Prototrich most numerous but local in
Covillea. largely adult.

Orth. 15 + 3474 = 3489

Orth. ins 1 + 642 = 643

1956. 179 Sink of Mimbres, 16ms. E of
Heming (N.E. of Little Florida Mts.),
Luna Co., N. M. IX. 14, 1956 (R.) Elev.
(an.) 3950 ft.

Thence salt grass on dry sink flat. Nothing
seen except what was taken.

✓ Paropromela juv. 1 taken.

Tropidolophus 2 juv. diff. instars.

Juv. melanoptoid 1 taken.

Orth. 4 + 3489 = 3493.

Orth. ins. 1 + 643 = ~~643~~ 644

1956. 180 East side of San Augustine Pass,
Organ Mts (directly E. of San Pedro Peak),
Huerfano Co., N. M. IX. 14, 1956. (R.)

Elev (an.) 5475 feet.

Timble weed, scattered brush grass, many tall
yellow-flowered composites, etc.

Herotoma la. laticinctum 1 ♀ on ground,
all seen.

Rehneria 1 taken on ground, another seen &
lost.

Cibolensis 2 very small juvs. taken on ground.

Mel. th. w. (laticinctus?) Numerous, particularly
in timble weed.

Hemiteles 3 seen, 2 taken, on fr.

Orth. 26 + 3493 = 3519

Orth. in. 2 + 644 = 646.

1956. 181 Tularosa Valley, 39 mi SW of
Alamogordo, Huerfano Co., N. M. IX. 14, 1956.
(R.) Elev (an.) 3775 ft.

Soil relatively rich but very dry roadside
vegetation. Much of fence Mt. Res.
with corn almost compl. removed.

Black brush present (but no Goniatum),
yellow-flowered composites, Kochlinia,
brush grass, etc.

No 0 at all etc. 1 Pseudomyle
supt from composites.

Orth. 1 + 3519 = 3520.

Other ins. 0 + 646 = 646.

1956. 182 4 ms. N. of Alamogordo,
Cerro Co., N.M. 1X. 15. 1956. (R.).

Elev. (an.) 4450 ft.

Corilla on flat - everything taken supt
from or picked from same. Nothing seen on
ground surface.

Stagmomantis 1 ♀ (narrow crystal field) from
Cov.

Rhabdovestitus 1 ad. ♂ 2 ad. ♀ - 2 juv. from
same. ♂ on a terminal spray.

Boottellia, a number of adults - no juv. in
diff. instars.

Mel. th. w. sp. 1 ♂ in Corilla.

Incarum - the vagrant sp. - 1 ♀ in Corilla.

Arctura 1 very sm. juv. supt from Cov.

Eumopoda 1 ♀ supt from Cov

Orth. 24 + 3520 = 3544.

Other ins. 2 + 646 = 648.

1956. 183 Tularosa Canyon, Sacramento
Mts, 2 mo. below Bent (10.5 ms. E. of Tularosa),
Utter Co., N. M. 1X. 15, 1956. (R.) Elev. (an.)
5700 feet.

Scattered piñon & juniper with low mesquite,
brush grass & a little Atriplex. Very few C.
On granularly tilted surface only red-legged Tinia.
- juv. Oedipodes & ♂ ^{Stagmomantis} ~~Stagmomantis~~ swept from
Atriplex.

Alt. 4 + 3544 = 3548.

Alt. in. 5 + 648 = 653. ✓

1956. 184. 2.5 ms. NE of Mesalero, Mesalero
Indian Reservation, Utter Co., N. M. 1X. 15, 1956.
(R.) Elev. (cl.) 7100 feet

^{Open}
Areas with grass and weeds in pine
woods. Everything recogn. was taken except 2
Microtus canadensis lost.

Parabambus 2 ♂ swept from tall grass.

Juv. Antitethis swept from ground cover.

Agrostotethis 1 ♂ on gr.

Chorthippus locally comm. in grass - not
found or juv. taken.

Juv. Orthopodids of at least sev. genera on
bare ground.

Crematophyes local, both sexes taken

Tin. Stenopod 1 ♂, all seen.

Mel. th. w. species few. Recogn. no male.

Arth. ~~32~~ + 3548 = 3580⁵⁰

Arth. vis. 42 + 653 = 695.

1956. 185- Upper Rio Grande Valley, 2 ms. NE
of Green Tree, Lincoln Co., N.M. 14.15.1956.
(R.). Elev. (am.) 6000ft.

Roadside grass, weeds & bare spots of
gravelly silt. All species recogn. none
taken.

Encyrtophorus a few seen, 4 taken in low
weeds.

Harotumma - a single ♀ on banana.

Alphid pseudomictana sev. seen, long
flying, 1 taken.

Trim. melanopterus Locally numerous,
particularly on area, good series taken.
not as big as usual for large species
of this genus. (Note the orange-red ventral
of Brachymeria 1 ♂ in weeds. Inf. in both
eyes)

Mel. parhardi 1 ♀ taken.

" sh. w. species a few, both sexes
taken.

Arth. 29 + 3580 = 3609.

Arth. vis. 6 + 695 = 701.

1956. 186 Bttr. Trinne + Picacho, 2.5 ms.
E of Trinne, Lincoln Co., N.M. IX. 15. 1956.
(R.) Elev. (am.) 5250 ft.

Roadside tall weeds and yellow-flowered
composites, thistle, sandpaper and tall
bush grass.

All species recognized taken.

Opeia a single ♂ taken

Asphix pseudomistana, a single ♀ seen + taken.

Trin. melangt. 14 seen + taken - all noticed

Campylacantha seen, only on the yellow-
flowered composites.

Mel. th. co seen, female.

Photolista seen, + female.

Orth. 45 + 3609 = 3654.

Orth. no. 9 + 701 = 710.

1956. 187 Lincoln-Chaves Co. line on U.S. 70,
11 ms. E of Riverside, N.M. IX. 15. 1956.
(R.) Elev. (am.) 4500 ft.

Very dry rolling high plains conditions.

Mat. concentrated in the mixed vegetation
of a dry arbovit drain, etc. Heper. c

Prolocosa, which was on gravelly silt.

Psolocera, 1, as above.

Myrmopterus 2 ♂, as above.

Opeia, 1 ♂.

Tropidolophus, 1 very Tenuis ♀.

Phaenocarpa, a number of imm.

Mel. Th. - w. sw. ad. ♂♂.

" thomasi 1 ♂. All seen.

Campylacanthus 1 ad ♀ - 1 juv. Taken.

Orth. 15 + 3654 = 3669.

Orth. in. 2 + 710 = 712

1956.188 4.5 mi. N.E. of Roswell,
Chaves Co., N.M. 1X. 16. 1956. (R.)

Elev. (an.) 4250 ft

High plains, very dry, tangled and largely
dead grass, thistle, some yellow-flowered
composites (low) + a little tumble weed.

Very limited D. - all recogn. Taken.

Agrostis 1 Taken, on pr., all seen.

Tropidolophus 2 ♂ Taken, 1 other seen.

Campylacanthus a few, 2 Taken,
in composites.

Mel. 1 species 1 spec. Taken, all noticed.

Cycloptilum 1 swept.

Orth. 11 + 3669 = 3680.

Orth. in. 3 + 712 = 715

1956. 189 21 mo. NE. of Roswell [1 m. SW.
of Melma, one of our 1921 locs.], Chaco Co.,
N. M. IX. 16. 1956 (R.) Elev. (an.) 4200 ft.
~~the~~ low stony bunch above general immes.
level with small patches of Covillea sole
Q. beaten out of Covillea was Cycloptilum.
All other mat. from ground or scattered
low bunch grass or low yellow-flowered
composites.

Cordillaria 1 juv.

Rehnia 1 ♂, another seen.

Trim strema-type, 1 ♂, 1 ♀ taken, no other
seen.

✓ Paropomula 1 juv. high

Cycloptilum, as above

Utch 9 + 3680 = 3689.

Utch ins. 2 + 715 = 217.

1956 190 5.5 mo. NE. of Highfensome,
(beto. Roswell - Elders), Chaco Co., N. M.
IX. 16. 1956. Elev. (an.) 4575 ft. ✓

On reddish sand - many narrow leaved
grasses, composites, thistles - tall grass.

Parasacculus both sexes adult, chiefly in
tall grass.

Pseudoscorpion both sexes adult, usually in
composites ("rabbit weed").

✓ Paropomula in tall grass.

Trimerotropis sp. Only 1 seen - Taken. On
the sand.

Campylacantha - Hesperotettix (only
1 seen) in rabbit used.

Arctia rupt from same.

$$\text{Leth. } 29 + 3689 = 3718.$$

$$\text{Other ins. } 21 + 717 = 738.$$

1956. 191 15.5 ms. ENE. of

Elkins, Chaves Co., N. M. (near Roosevelt Co.
line). IX. 16. 1956. (R.) Elev. (air.) 5700 ft.
~~4200 ft~~

Very low thin oak (2-2 1/2 feet), in thick mat,
yucca, some bunch grass, much bare reddish
sand, which covers all. ~~Pres. Foss high.~~

Everything clearly unique. was taken - exc.
1 Trim. of the same species taken at
1956. 190. No more of it could be located

Parabrillius 1♀ Taken, rupt.

Mel. flavidus type. 1♀ Taken.

" "quadratus" type. 1♂ "

Juv. Acridinae. nr.

$$\text{Leth. } 7 + 3718 = 3725.$$

$$\text{Other ins. } 6 + 738 = 744.$$

1956. 192 8.6 ms N.E. of Alfrida,
Roosevelt Co., N.M. IX. 16. 1956. (R.)

Elev. 4200 ft.

Sunflowers, Fumaria-med, + num. Other
low elements of plains com on red sand.

Parabaculus 20. smpt. Wind strong.

Herotoma 10, 24 on sand

Thysanarchia 1 ♀ on sand

Hesperis (one damaged ♂) on sand, all seen.

Tropidolophus 1 on sand, all seen

Campylacantha smpt.

Mel. 3 species appar. Taken. Two very strong
flies, carried long distances by wind.

Ultr. 18 + 3725 = 3743.

Ultr. 6 + 744 = 750.

1956. 193 10.5 ms. NNE. of Portales, Roosevelt
Co., N.M. IX. 16. 1956. (R.) Elev. approx.

4150 ft.

Roadside - Fumaria-med, sunflower &
var. Other plants on reddish sandy & grassy
silt. Wind strong.

Spharagemon 1 taken on sand - all seen.

Mel. "quadristriatus" - 1 ♀.

"flavipes" types. 2 species Taken -
very strong flying.

Campylacantha a few, quite
small - perhaps immature.

Cycloptilum 1 mpt

Orth. 12 + 3743 = 3755.

Other ins. 5 + 750 = 755. ✓

1956. 194 Between Clovis - Texico

[2.0 mi. E. of Clovis] Curry Co., N. M.

IX. 17. 1956. (R). Elev. (am.) 3900 ft.

Plains vegetation - dry drain with tall
grass - weeds.

Mermis reorner. in tall grass, which
is in part grass and where curing
red brown.

Campylacantha - num. chiefly in weeds.

Phaenocarpa a number.

Mel. laticornis type. numerous.

" flavipes type - a few, 1 taken.

" robust species - 1 P, 1 ♀, very few
seen.

Oecanthus mpt.

Orth. 27 + 3743 = 3770.

Other ins. 3 + 750 = 753. ✓

1936 195 1m. NE. of Bovina, Parker Co.,
Texas. 1X. 17. 1956 (R) Elev. (am) 3660 ft.

Two areas - one ~~badly~~ greatly dried up
grassland roadside area, most species
taken there; the other one of tall reeds
along the edge of a ~~now~~ nearly dry slough
of Running Water Creek [but no running
water now], 4-6 feet high veget. All Mermiria,
Mel. fennii - rubrum - M. diff. were taken there,
also some Mel. labialis type, which was
also general in occurrence.

Synchlora 2♀, all seen, in the low grassland
Mermiria macul. & M. n. comes. both in the
reeds, as ment. above.

Phyllostoma a few females in the low grassland.
Very large.

Cepia - a few, same area.

Tropidolophus 1 taken in low area, all seen.

Phortalis, a few in reeds.

Mel. labialis common, general.

" diff. 1, all seen, in tall reeds.

" f. rubrum in all tall reeds, a few.

" "quadratus" 1, all seen.

Oenanthus 1 rept.

Lev. 43 + 3770 = 3813. ✓

Altitude 3 + 753 = 756.

1956. 196 3 mo. NE. of Summerfield,
Deaf Smith Co., Texas. IX. 17. 1956. (R.)

Elev. (est.) 3650 ft.

Badly dried up great plains yucca -
grass, Fruite-and, with much dead.

C. fairly numerous. All species ungn.
taken.

Diapheromera bile 1 ♂ hater.

Agrotis tellur - no. from ground surf.

Mercuria maurip. a few - in tall yucca.

Campylacantha not num. - small series taken

Oecophiles num. - very active, chiefly in
the burned up corn.

Brachyot no 1 ♂ hopping in dried up yucca.

Brachyot no 1 ♂ on ground.

Mel. calvus type num., several.

" "quadratus" a few.

" littatus 1 ♂, all seen.

" fordus? 2 ♀. all seen.

Quadratus a few swept.

Utah. $51 + 3813 = 3864$.

Other ins. $10 + 756 = 766$.

1956.197 2 ms. SW. of Umbarger,
Randall Co., Texas. 1X.17.1956 (R.)
Elev. (am.) 3250 feet.

Weedy and very dry plains vegetation,
much dead, many tall dry weeds,
some grass, mostly low and dead, bare
spots of silt.

All species of *O. recognized* were taken
exc *Ceryle pondonitana* (but 1 seen) &

~~*Lepus* (sev. but very long flying) & *Taxidea*~~
~~of which I was later~~

~~*Peromyscus* 1 taken~~
~~*Meristamus* 1 taken on ground.~~

Spharagnum " " " "

Lepus, about 4 seen, 1 ♀ taken, flying
tremendous distances.

Trim. pallidip. sev on fr. taken

Tropidolophus a few, 2 ♂, 1 ♀ taken. Found
up on legs.

Campylorhynchus sev. seen, 1 taken.

Acrolophus but a few noticed, 4 taken.

Mer. latrans type, a number, sev. taken.

" *diff.* a few, 2 taken.

Uroth 19 + 3864 = 3883.

Utherius 3 + 766 = 769.

1956.198 4.5 mo. NE. of St Francis,
Carson Co., Texas. 1x. 18. 1956. (R.)

Elev (an.) 3525 feet.

Dry drainage ditch betw. RR. track
and highway, full of tall dry weeds. Else-
where ploughed or cultivated.

Aeroplides abundant and very active, chiefly
in tall rank weeds.

Campylacantha, not numerous, local.

Mel. labialis type, abundant, several.

" diff. a few, 1 taken.

" flavides^{type} 1 taken, all new.

" ferrugineo-rubrum a few.

Ceanothus 1 imp.

Orth 59 + 3883 = 3942

Orth inc. 1 + 769 = 770

1956.199 3 mo. NE. of Panhandle,
Carson Co., Texas. 1x. 18. 1956. (R.)

Elev. (an.) 3400 ft. Wind very high!

Tall, largely sun-cured, grass on roadside
(elsewhere grazed out or cultivated), some
short pure areas.

1956. 199 (cont.)

Mernia - both maulip - nomex - always
in the taller grass, and drifting far with the
very strong S.W. wind.

Upeia about the short-grass areas.

Agrostis near the ground.

Eriogonum 1 ind. juv. nupt.
Photostichus inermis.

Mel. californicus 1 taken

• ferus - rubens 1 taken.

Campylacantha few, 1 taken.

Uth. $29 + 3942 = 3971$.

Uth. ins. $0 + 770 = 770$

1956 200. 6 ms. E. of Pampa, Gray Co.,
Texas. 1X. 18. 1956. (R.) Elev. (an.) 3050 ft.

Wind exceedingly high!

Mowed roadside drain - very little U.
All adj. ground ploughed.

Campylacantha - a few.

Mel. californicus - ditto

" "quadratus" 1 ♂, album.

" ferus - rubens. 1 ♀ taken.

Upeia nupt

Uth. $9 + 3971 = 3980$.

Uth. ins. $9 + 770 = 779$.

1956 201 5 mo. SW. of Miami, Roberts
Co., Texas 1X. 18. 1956. (R.) Elev. (am.) 2650 ft.
Along ^{wind very high} or near bank dry stream bed
trib. of Red River Creek (this a branch of
the Canadian system). Exceedingly dry
tall grass, various weeds, some fully dried
up and dead, yucca, etc.

Ceritettix Very small juv. impt.
Leptis a few, close to ground.

Agrostotettix a number, on ground.

Mermiria remon. active.

Schistocerca lineata free flying, going
long distances with the aid of the wind.
Saw 6 Decem 6.

Phaetolites a few.

Mel. puberula a few.

" diff. torh 1, all same.

" f. rubrum 1 D. torh.

Crk. 26 + 3980 = 4006.

Other ins. 7 + 779 = 786.

1956. 202 2 mo. NE. of Miami, Roberts
Co., Texas. 1X. 18. 1956 (R.) Elev. (an)
2550 feet. Wind my life.

Under or near dense stand of
cottonwood trees along now dry stream
course.

All Tettigoniidae were taken in or near
shade.

Acrida 1 taken out in sun - all sun.
" juv. ? 1 kept.

Phantasiotes 1 ♀ kept.

Mel. femur-nigrum 1 ♂ kept.

" diff. a few, a pair taken.

Urch. 2 ♂ + 1 ♀ taken, all sun. } search made
for more.
Conosiph. 1 ♂, 3 ♀ " , " " } no success.

Orth. 13 + 4006 = 4019.

Orth. ins. 2 + 786 = 788.

1956. 203 3 mo. NE. of Canadian
River at Canadian, Hemphill Co.,
Texas. 1X. 18. 1956. (R.) Elev. (an.)
2440 feet.

Sand hill type of plains, with surface

almost entirely sand. Cover chiefly
woods - largely sandpear - and hackberry
tangles of great density. Wind high

Very little O.

Mel. diff. 1 ♀ species taken - 1

Sch. lineata present, but taking refuge in
the ~~impenetrable~~ impenetrable hackberry
tangles.

Orth. $1 + 4019 = 4020$.

Other ins. $8 + 788 = 796$.

1956.204 6ms. NE. of Glacier,
Lipscomb Co., Texas. 1 X. 18. 1956.

(R.) Elev. & approx. 24⁰⁰ feet.

High wind.

Very dry high plains grassy swale. Very little
O.

Everything neg. taken exc. 1 Paropromela
negom. lost!

Merm. neomer. 1 ♀ taken.

Schistoc. lineata 1 ♀ taken (others seen).

Campylacantha 1 taken

Mel. diff. 1 Taken.

1956.204 (cont.)

Mel sp. 2 1 taken

" " 3 1 taken

" " 4 1 taken

Orth 7 + 4020 = 4027.

Orth ins. 0 + 796 = 796. ✓

1956 205 2 mo. E of Arnett, Ellis Co., Oklahoma.
IX.19.1956 (R) Elev (am.) 2220 feet.

Mid high

Plains vegetation with much grass, sand-
spur and clumps of tall brush grass. Small
areas of almost bare sand.

Stegomyia juv. most from com

Eritetix 1 juv. most from ground.

Agrotetix on ground.

Asphix juv. on ground.

Neurotetix spurius a few, 2 taken.

Campylacantha not seen, 3 taken

Chrostocera lucata 1 taken.

Mel. mex. 1 ♀ taken

" flavus Numerous (blue flies)

" " or rel. Deu (red flies)

Cecanthus 1 impd.

Cesth. 26 + 4027 = 4053.

Other ins. 1 + 796 = 797. ✓

1956. 206 5.5 mi. E of Harmon,
Ellis Co., Oklahoma. 1X. 19. 1956. (R.)

Elev. approx. 2125 feet.

Small low oak thickets interspersing
prairie grassland conditions and plant
types - much sandspur. Very little

Agrostis on ground.

~~Sphaer~~ Spharagemon on bare ground.

Campylacantha very few, 1 taken.

Schistocerca lineata feeding in oak thickets.

1 ♂ taken.

Mal. 2 spp. of the flavipes type.

flying into oaks when pursued.

Cesth. 7 + 4053 = 4060

Other ins. 1 + 797 = 798.

1956. 207 5 mi. E. of Vici, Nowata
Co., Oklahoma. 1X. 19. 1956. (R.)

Elev. (altim.) 1700 feet.

Near dry drain. Tall rank grass,
sandspur, furcuth-weed, etc., with bare patches

1956.207 (cont)

of sandy ground.

Stenomantis 1 juv. mpt.

Ceritettix 1 juv on ground.

Agrostettix on ground.

Phragmus on sandy ground

Mel. lachinus type 1 ♀ Taken.

" "guadratus" 2 ♂, 1 ♀ Taken.

" trittatus 2 ♀ taken

" obtusatus 1 ♂, 2 ♀ Taken

" funerarius 1 ♀ taken

" mexicanus ? 1 ♀ taken.

" sp. ? tw. Taken.

Photolistes 1 ♀ taken.

Oecanthus 3 mpt.

Orth. 22 + 4060 = 4082.
Other ins 2 + 798 = 800.

1956.208 1 m. W. of Orion, Major
Co., Oklahoma. IX. 19. 1956. (R.)
Elev. approx. 1500 ft.

Old corn field, largely grown up in
sunflowers - soil sandy loam.

Sphragnum on ground surf.

Hadrotettix ditto, 2 seen, 1 taken

Mel. packardii a few, 2 taken.

Ceanothus all swept from sunflowers.

Orth. $18 + 4082 = 4100$.

Other ins. $6 + 800 = 806$ ✓

1956. 209 5.5 ms. N. of Fairview,
^{Major} ~~Quincy~~ Co, Oklahoma. IX. 19. 1956. (R.)

Elev (altim.) 1150 ft.

Roadside - ~~road~~ mowed grass - weeds,
with areas since grown up in sunflowers.

Hippiscus, 1 - all seen - taken on roadway.

Desmottettix speciosus 1 - all seen.

Mel. vittatus a few - 1 taken

" diff. num., 2 taken.

" flavipes type 2 taken, others seen.

Ceanothus swept from sunflowers -

Orth. $14 + 4100 = 4114$,

Other ins $5 + 806 = 811$ ✓

1956. 210 7.4 ms. E. of Cleo Springs,
Major Co., Oklahoma. IX. 19, 1956. (R.)
Elev. (altim.) 1200 ft.

Roadside Tall weeds, partly *Amorpha*-
canadensis - in dry drain,
some sandy tilt areas.

Agrostoides in ground.

Sphagnum on road edge.

Mel. "flavides" type a few

" fenn. rubrum ? 1 taken

" rub. ? 1 taken

" "gradatus ?" 1 taken

" viridatus 1 taken.

Oenothera beaten from weed.

Orth. 17 + 414 = 431.
Utheria 1 + 811 = 812. ✓

1956. 211 2 ms E. of Pond Creek, Grant Co.,
Oklahoma. IX. 20, 1956. (R.) Elev.
(altim.) 850 feet. Wind very high

Roadside dry ditch, with tall grass, *Amorpha* weed,
Sanderson, etc.

Sphagnum moss. + *setosus*, on bare
ground.

Agelaius, on ground.

Mel. appar. 3 species. Numerous.

Coccyzus - nupt.

Orth. 26 + 4131 = 4157.

Other ins. 0 + 812 = 812. ✓

1956. 212 4 ms. E. of Tonkawa, Kay Co.,
Oklahoma. 1X. 20. 1956. (R.) Elev (altim.)
750 feet.

Wind high!

Roadside, mowed but partially
grown up.

Melospiza few, 1 pair taken

Trachyphaps few, 2 taken, roadside.

Hippiscus a number, road edge, 3 taken.

Agelaius a number, on ground.

Mel. diff. numer., sev. taken.

" pachardi 1 taken, all range.

" mex. numerous.

Scolecophagus 1 juv. nupt.

Conocorymbus 1 ♂ nupt.

Coccyzus num., nupt.

Orth. 30 + 4157 = 4187.

Other ins. 0 + 812 = 812 ✓

1956. 213 11 ms. E. of Ponca City,
Osage Co., Oklahoma. 1X, 20, 1956.

(R.). Elev. (altim.) 850 feet. Wind high.
Roadside vegetation, chiefly weeds,
bordering oak thickets.

Agrostis num on ground.

Mimosa tw., 1 ♀ taken.

Trachypachis 1 ♀ taken, on ground.

Mel. sp. num., both sexes taken

Neonoph. 1 ♀ swept from weeds.

Uct. $15 + 4187 = 4202$.

Other vis. $3 + 812 = 815$.

1956 214 6 ms. W. of Pawhuska,
Osage Co., Oklahoma. 1X. 20. 1956 (R.)
Elev. (altim.) 850 feet. Wind high.

Open plains condition (range land). Roadside
work. Everything recogn. was taken except
1 Hadrotettix lost.

Synbula admir a few, 1 ♂, 2 ♀ taken.

Cyphobella num., small ones taken.

Agrostis on ground.

Hippisus a few, 1 ♂ taken.

Mel sp ? 1 ♀ taken.

Cicadula 1 swept.

Orth. $19 + 4202 = 4221$,

Orth. in $0 + 815 = 815$. ✓

1956. 215 ~~215~~ Coodys Bluff, E. side
of Verdegris River, Nowata Co., Okla.

IX. 20, 1956 (R.). Elev. (check 1954
notes) 700 ft.

Roadside + steep cut bank covered
with dead or dried weeds + grasses

All species recognized. Taken esp. Hemiteles.

Aganotettix on ground.

Aspilota sp. " "

Campoplexanthus divinus numerous.

~~the~~ Mel. diff. a few, 1 taken

" Britt. " " 1 "

" mix. numerous.

Ucaanthus rapt.

Orth. $20 + 4221 = 4241$. ✓

Orth. in $0 + 815 = 815$

Santa Lucia Mts.

1957.1 Hartings Wild Life Reservation, Monterey
Co., Cal. Aug. 29. 1957. (R.) Elev. 1700 ft.

Out grass and very short ground cover close
to the roadside here. Melanophus desertata
the most numerous species. Mel. lignescens
type, a few, local. Porzana Thompsoni
1 ad. & 1 juv. near border of oak woods, but
not in latter. Oenanthe sp. 1 swept under
edge of oak woods. Nothing beaten out
of oak.

$\bar{L} = 25$

Wings = 4

1957.2 Same tr. as 1957.1 but VIII. 30. 1957.
(R.).

Essentially the same conditions as 1957.2
with some spots bare blackish earth, more tall
out grass and small piece of under under
oaks.

Melanophus, des. far and away the most num.
species, in all subenvironments, broad
range of color forms and size in the
population. Mel. lignescens type, a few,
scattered. Oedalaenetus enigma very local,
not numerous. Oedala. smaller species,
very few, apparently just coming adults,
equally local. Hisioctinia red-winged,

1 ♀, all seen, close to ground under low cover
Chimerocephala very small juvs. Cheanthus
both in open low cover and under the
edge of oak stands. Potomus hammonsi
1 ad. ♂ 1 ad. ♀, all noticed, taken well apart
from one another. Myiostethus sp. w. 1 ♂
supt, all seen.

Orth. $68 + 25 = 93$.

Other vis. $10 + 4 = 14$.

1957.3 Same as 1957.1 but Aug. 30 PM.

(R.). Same area as covered in 1957.1 and
1957.2.

Melanophus desertator found - abundant,
many color types.

Melanophus tigrinus type. Local in sev.
spots, in both tall wet grass, short grass -
on bare spots of black soil.

Oedalaenotus enigma. A very few in
the same small area, with redwood,
butter-like ground hugging mullen-
like, bluish white plants.

Potomus hammonsi. A single male to
Trim. frontalis. A single one seen - taken.

Cheanthus. 1 supt.

Juv. oxyphodids. No supt

Orth. $41 + 93 = 134$.

Other vis. $9 + 14 = 23$.

1957. 4 Hastings Wild Life Reservation, Monterey
Co., Cal. Elev. 1200 - 1800 feet. Aug. 31, 1957 (13)

Worked on slopes to NW. of The Hinsdale home first,
then below the house, where I have worked the last
two days. The former was chiefly badly eroded
slopes, often nearly bare or with very sparse cover
or in part tall grass cut grass. Almost nothing
there except M. dermatata. The latter situation
was the lower elevation, tall cut grass, with
bare patches and much of the low mullen like
plant. M. dermatata abundant in both
areas. Oedalon. virgata 1 seen & lost at
upper station, 3 taken at lower, but one
other seen & lost there - always on ground or
low ground cover, a croucher, never often
passed me. Oedalon other sp. - one female -
all virgin. - at lower station. Psolocara,
one seen but escaped, 1 juv. taken at lower
station. Blisotaria red-wing - one at
upper station, all seen. Chiroptera a single
female taken from low cover under tall
grass, just below house.

Arth. 15 + 134 = 149.

Other ins. 1 + 23 = 24.

1957.5 Same general area, above below
Hindali house. Aug. 31, 1957. PM.

In tall grass, in two ^{open} ~~thick~~ corn and on
virtually bare black caliche soil.

Mel. dorsator general & common.

" th. w. sp. (leptochus sp.) a very few,
quite local.

Oedalonotus unipennis very local, in
areas without tall oat grass. Not numerous.

Hispanotus red-wing. But one seen &
taken - up the slope from the house.

Psilocrossa thamnozaca 1 ♂ taken, all
unrecognized.

Chionophanes, 1 ♂ taken in thick but low
ground.
" corn above the house - all seen.

Orth. $13 + 149 = 162$.

Orthoc. $0 + 24 = 24$.

1957.6 Hastings Wild Life Reservation, Santa
Lucia Mts., Monterey Co., Cal. 1700-1750 ft.

Sept. 1, 1957. (R.) Round Madrone
canyon.

In wash above the Hindali home. Chiefly
wooded with various oaks and sycamores.

A few patches of grass here and there, a heavy
carpet of dead oak leaves, tall oat grass
intrusion here & there.

Procto Paolonia thannogaea 1 taken, one other lost, on dead oaks under oaks, but in sunny spot.

Blisteria "venusta" 1 ♀, ~~at~~ one other lost, in spot of relatively bare earth near barn.

Trinotropis fontana 1 ♀ - black phase - in heavy shade under oaks - no charcoal area near and no sign of old tanning.

Mel. devastator - a few in patches of tall grass intrusion from adjoining open land.

Mel. lepidus group. Not uncommon under the oaks, often on dead oak leaves. Very active - elusive.

Orth. 14 + 162 = 176.

Orth. in. ~~24~~ + 24 = ~~24~~ 25.

1957.7 Same locality but elev. 1700-1800 ft
Sept. 2, 1957. Low divide which dirt road crosses on way back to Carmel Valley. Considerable area of chamise mixed with low oak, and open hill slopes with oat grass and other patches of much lower ground cover. Very little etc. M. devastator. Not worth examining.
Nothing found in chamise.
M. devastator very numerous chiefly in the open areas!

M. lignicolor group. fr. seen, one taken,
near the border of Father's growth and
in one case shaded by tall oaks.

Polioptila thymogaea fr. seen, one taken, in
widely separated spots. Not at all common,
chiefly near its western limit.

Chondestes sp. 1 ♀ swept.

Alth. 6 + 176 = 182.

Alth. inc. 3 + 25 = 28.

1957. 8 Hastings Wild Life Reservation, Monterey
Co., Cal. Elev. 1750 - 1850 ft. Apt. 2. 1957.
(R.).

Area worked across the saddle to the SE. of
the Hinsdale home to the homestead ^(Melin Ranch) on the
west hollow. Work along road, chiefly in barren
spots.

Camnula, a single ind. taken in short grass along
road - all recognized.

Trinervotopsis sp. A single male near the road.

Mel. deserti many, a few taken.

" lignicolor group - small, not frequent.

Chelidonichthys erigone - a single one in
road ^{low} grass

Uta sp. A few, others lost.

Blasiot. umata Numerous, active, varied
in the trees.

1957.8 (cont.)

Uranthus, a few nupt.

Uth. 21 + 182 = 203.

Uth. n. 1 + 28 = 29.

1957.9 Same loc. Sept. 3, 1957. Elev. 1700 ft. (R.)

Look down in the tall oat grass, and some corn and turn spots below The Risdale home and the Harris house. Quite warm. Nothing recognized was not collected.

Polocosa thannogara few seen, one taken, only in turn spots, most active.

Histiogaster vincta A few seen, one taken, only on turn ground.

^{Chrysomelids} 1 juv. nupt.
Mel. arctata everywhere in plant corn in the zone, all sizes and many color type types.

Mel. lignosus group. Very local, and then relatively numerous. No explanation could be suggested for the localization, as it did not seem to be correlated with particular corn, although much less frequent in the tall sun-dried oat grass. Very active.

Uedat. sanguina. A few, local - ^{Three taken} ~~Two taken~~

" indurata sp. Local, not numerous - ^{Two taken} ~~Two taken~~

Chrysomela
sternorhynchos 1 ♀ taken in tall grass, at root of ^{taken} ~~Chrysomelids~~
Chrysomelids - long chase to get it.

Uranthus. Four nupt. 1 juv. 3 ad.

Uth 45 + 203 = 248.

Uth. n. 0 + 29 = 29.

1957. 10. Top of divide (^{Sierra de} Salinas) above
Hastings Reservation, Monterey Co. Cal.

Elev. 2500ft Sept. 3, 1957. (R.)

Tall grass under ^{open} oak cover - cattle grazed
but grass long. Wonderful view over Salinas
valley. Very few C.

Peroloma thamnogaea one seen - lost.

Cedrela cuneata a very few, two taken in
grass.

Chamaeleon juv. 1 Taken.

Uth. 3 + 248 = 251.

Uth. vis. 0 + 29 = 29.

1957. 11 West side of same divide at
2100 feet. Sept. 3, 1957. (R.)

Oak & pine forest with open grassland
patches. Found nothing in pines, beating
produced nothing from the oaks. Grass
areas netted only 1 *Peroloma th.*, and
two female *Cedalemon* *crad.* species.

Uth. 3 + 251 = 254.

Uth. vis. 2 + 29 = 31.

1957.12 Same as 1957.9 but Sept. 4, 1957.

Mel. dorsata numerous as usual.

Aed. cingula a few - all recognized.

Chimotria venusta a very few - one taken.

Perisoreia thomomys One male taken, a few escaped but only a few seen.

Catch. $14 + 254 = 268$.

Catch vis. $0 + 31 = 31$.

1957.13, Along Tularcitos Creek,
Carmel Valley, near Tularcitos Ranch,
Monterey Co., Cal. Elev. approx. 700 feet. Sept. 4, 1957.
(R.).

Aed. alconator endemic species. Single one
along edge of tall woodland near Creek.

Catch. $268 + 1 = 269$.

Catch vis. $0 + 31 = 31$.

1957.14 Point Lobos, Monterey Co., Cal.
Elev. circa 75 feet. Sept. 4, 1957. (R.)

In low corn, chiefly tall grass, in open.

just above beach and beach rocks. Shrub. Few C.
Juv. Arphia 1 taken.

Mel. dorsata a few, not numerous.

Uranotaenia a number swept.

Catch. $10 + 269 = 279$.

Catch vis. $0 + 31 = 31$

1957.15 As 1957.8 but all on Hastings side
of fence. Elev. 1700-1775 ft. Sept. 6, 1957. (R.)
Along road, partly in open, partly under
oaks, some bare areas, mostly tall oak forest.

Sw. juv. Aphidius scriptus.

Microstigma variegata - Locally on the bare
spots. In twilight.

Cidulicallia two endemic species. One ♀,
all unrecognized. Under oak shade.

Mel. decolorator - Not frequent, too shaded.

" liposoma sp. A few, generally in
the shaded sections, under oaks.

Scutellaria 1 juv. scriptus.

With. $20 + 279 = 299$.

Other ins. $4 + 31 = 35$.

1957.16 On Melin Ranch adjoining Hastings
Reservation to the eastward. Elev. about 1900
feet. Sept. 5, 1957. (R.).

Open oak grass slopes with numerous bare
or nearly bare spots.

Proctos thamnogeton a few, very active, one
taken, general.

Microstigma variegata locally numerous in bare
spots.

Corynor sp. A single ♀ taken. No others recogn.

1957.16 (cont.)

Adelomachus marginatus 17, all seen, in three spots,
" endemic sp. juv. ♀, in separate
spots, same areas.

Mel. dissectata numerous.

Trim. albescens One small colony, very local,
on bare ground.

Uth. $20 + 299 = 319$.

Other ins. $3 + 35 = 38$

1957.17 Same as 1957.1 but Sept. 5, 1957. (R.).

very little D.

juv. Asphid. 1 swept.

Mel. dissectata a number - no. taken.

Mel. lignosus type. juv., two taken, here rather
near the border of oak stands.

Chrysosternis univittata 1 ♀ taken, all seen,

Oecanthus 1 juv. taken from oak orchard.

Uth. $7 + 319 = 326$.

Other ins. $7 + 38 = 45$.

1957.18 As 1957.6 but reaching higher, probably

to 1800 feet. Sept. 6, 1957. (R.) Madonna

Narrow trail along steep side of Canyon.

patch, opening out at times into small

flats. Slopes and gulch bottom fireweed,

chiefly oak, some oecanthus. General

cover with tall oak grass introduced from

The nearby slopes or low thin grass mixed with a varied ground carpet, pavement often dead oak leaves. Both scarce and very local.

Psolocosa thamnogaea Sw. lost, not taken. Very local, on ground, usually the bare spots.

Mel. desertator A few, in the same open spots, apparently intrusive from the nearby grassy slopes.

Mel. lignivorus sp. In small colonies, local, here not in the tall oak grass, but in the ^{thinner} grass and mixed vegetation. Very active. Numerous color phases.

Sordaria var. 1 ♂ swept along trail.

Oecanthus 2 juvs. swept.

Orth. $25 + 326 = 351$,

Orth. ins. $7 + 45 = 52$.

1957. 19 Same as 1957. 1 but Sept. 6, 1957 (R.)
very hot. 107° .

Psolocosa thamnogaea Scarce - 3 taken.

Mel. desertator Everywhere in great abundance

" lignivorus sp. A few, not numerous - 3 taken.

Cleidal. unguis Few. 2 ♂ 1 ♀ taken, very few others seen.

Cleidal. endemic sp. 1 ♂ 1 ♀ taken separately
all seen.

1957.19 (cont.)

Chiroptera 1 ♀ taken from ground in tall grass - all seen.

Crematogaster 1 ♀ swept.

Orth. 18 + 351 = 369.

Other was. 9 + 45 = 54.

1957.20 Hastings Natural History Reservation,
Monterey Co., Cal. Elev. ¹⁶⁵⁰ 1700 feet. Sept. 7, 1957.
(R.).

Work was done in areas near the road in
below the station. Along dirt road, bordering
vegetation and areas of tall oat grass and
others were bare blackish earth with little
plant cover.

Pitaneutria 1 juv. running on almost bare black
Trim. pallid. 1 on dirt road surface, all seen
here so far.

Chrysot. rufus several on dirt.

Mel. dorsatus swimming. Difficult to
find other species because of the
great abundance of this.

Mel. lignosus group. ~~Two~~ One ♀, all
seen.

Udabeutius enigma. Local on bare spots -
not common. The ones taken must avoid. search.

Crematogaster 1 juv. swept - one from overhanging
Orth. 27 + 369 = 396. foliage.
Other was. 6 + 54 = 60.

1957. 21 Same locality, 1700 ft. but 18.8.1957
(R.)

Work done between the road cut and the
pump house to the N. of the road. Very large
in out. grass (Bromus & another genus) in
more open bare spots, in a few rocky cracks
(nothing there) and in ground cover under
live oaks. Very few C. except M. deserticola.
Chironomus var. A very few, in bare spots. One
taken on surface of dirt road.

Trin. frontalis live on surface of dirt road,
all seen.

Mel. deserticola several, but more particularly
in open.

Mel. leucostictus group. One small colony in
dead oak leaves, dead grass and brush trash
in shade under giant live oak.

Chironomus 1 ♂ in tall grass in open, all
seen.

Cecanthis. No. 1000.

$$\text{Length } 15 + 396 = 411.$$

$$\text{Other no. } 7 + 60 = 67.$$

1957.22 Same locality, 1700-1800 feet.

IX. 8. 1957 (R.) The hill slopes to the west above the Hastings cottage. A few large oaks, several areas of the tangles broken but mostly tall grass. Very few C. exc. M. demetator.

M. demetator, numerous, but not as abundant as in the grass areas about the house.

Pitaneutria 1 ad. ♀ running on the ground.

Lindberia 1 ♀, pale pinkish straw color - swept in grass.

Orth. 3 + 411 = 414

Other ins. 0 + 67 = 67

1957.23 Same area as 1957.8, same characteristics. Sept. 9, 1957. (R.).

Enfiscula in thorn in Linddale house.

Pitaneutria ♀ running on ground in low cover.

Psolocesa few, scattered, 1 taken, in same areas.

Coryza a few, in one relatively bare spot on the Main Ranch lands.

Heiroptera var. rather general, but more particularly in the more sandy stretches of road.

~~the~~ Trinortopsis fontana 1♀ on trail along edge
of wooded section.

Trin. altissima? 2♀♀ in the relatively
bare area where ♂♂ of the species were taken
on Sept. 2. Sw. others seen, but no ♂♂.

Trin. hostilis 1♀ ~~is~~ along the shrubby border
of the road down through the glen. All
recognized. No change near.

Cedrel. virgata a few in same bare area
where taken on Sept. 2.

Cedrel. udum. spec. 1♂ taken in the wooded
glen - 1♀ lost.

Suddonia 1♀ in tall grass just beyond
house - kept.

Cedanthus sp. kept in tall grass.

Orth. $32 + 414 = 446$.

Orth. was $6 + 67 = 73$.

1957. 24 As 1957. 2 but Sept. 9. 1957. (R.)

Assiduous work in area where corn was
shorter and more dry blackish earth
exposed.

Polioptila thomomys A limited
number seen, a ♂ + a ♀ taken separately.

A very illusive species.

Melanophus devastator Everywhere, all
sizes and coloration. A new taken.

1957.24 (cont.)

Oedalimonetus enigma. Very local, sticking close to the ground, apparently hiding when not jumping, among root stalks. A powerful jumper and very capable of eluding a net, particularly the males.

Oedalimonetus endemic species. A single female taken. All seen.

Orth. $22 + 446 = 468$.

Orth. vis. $0 + 73 = 73$.

1957. 25 Madrona Canyon, Hastings Natural History Reservation, Monterey Co., Cal. Sept. 10, 1957.
Elev. 1700-1850 feet. (R.).

Melanophus desertator local, in many places on flats particularly.

Mel. lignicolor pup. Very local, but sometimes numerous in a small area. Generally in areas with many dead oak leaves, and always on the ground cover.

Psolocera. A few. Scattered.

Hissosterna var. Very local, in many spots, usually sandy ones.

Trini. fontana A single one taken.

Scuddina A few juv. impt.

Orth. $44 + 468 = 512$.

Orth. vis. $1 + 73 = 74$.

1957. 26 Sierra ~~de~~ de Salinas, Monterey
Co., Cal. West side to top of divide. Elev.

btw. 4000 in head of Bear Canyon (windmill
and top of Palo Escrito Peak, 4465' (survey
mark). Sept. 10, 1957. (R.).

The upper slopes of the Sierra de Salinas
is rather thickly wooded chiefly with oak,
many large, interspersed as single
trees in clumps over grassland. Conditions
of course not markedly different from
those of 1700-1900 feet but less tangles
and more open prairie. *Uth.* not abundant.

Mel. dermatata a very few.

Hirrost. dorsiventralis Most numerous,
on bare patches, as lower down, very
rare.

Trilob. frontana One at 4465'.

Cammina a small colony, only at 4465'.

Uth. 13 + 512 = 525.

Other ins. 6 + 74 = 80.

1957. 27 Trueta Ranch, Robertson
Creek, Monterey Co., Cal. Elev. 2500 ft.

IX. 10. 1957. (~~R.~~) (Jan. Lewisdale).

Unfound by rough house.

Uedalemonia endem. species.

Uth. 1 + 525 = 526.

Other ins. 0 + 80 = 80

1957-28 (1957.100A) Southwestern Research
Station, Can Creek, Chiricahua Mts., Cochise Co.,
Arizona. Elev. 5400 ft. Sept. 15, 1957. (R.).

Worked for quarter mile above station in main
canyon, chiefly in or near wash, much in shade
of oak, juniper + sycamores.

Stegomyia ♂ in screen of house in morning.
Psolocassa^{Fe.} 1 under oak in ground litter, all seen.

Trim. pallidip. 1 ♂ under oaks, unusual habitat,
all seen

Trim. red legged. 1 ♀ under oaks, all seen.

MetOreomyza plattei rubripennis. 1 ♂ in shade
along wash.

Heliothis benjamini. Relatively common
in and near wash.

Melanophes californicus. Very few adults, in
more sunny spots.

Melanophes desertivus. 1 ♀, all seen.

Conalcaea huachucae. Local, in shade,
on ground, chiefly on or among dead oak
leaves. No males seen.

Orth. 31 + 525 = 556

Orth. ins. 8 + 80 = 88.

1957.29 (1957.100B) Same area as 1957.28
but extending up canyon to first road
bridge. Elev. 5400 - 5500 ft. Sept. 15, 1957.
(R.).

Same general conditions as 1957.28.

Stagmomantis limbata 1♀ in grass under
oaks and junipers.

Psolocrossa 1♀ in dead oak leaves - all seen.

Auphina. Sw. pairs on ground in shade.

Mecrobregma plattei rubripennis. 1♀. Same area.

Heliaetis benjamini. Same type of
habitat as for 1957.28.

Melanoplus calurus. Few adults, one long-
winged, plus juvs., usually in grassy and
sunny spots.

Conabona huachucae. Local, numerous,
usually on or in dead oak leaves. A few
males taken. Very active.

Orth. 38 + 556 = 594.

Ceth. ins. 10 + 88 = 98.

1957.30 (1957.101A). Same loc. as
1957.28 + 1957.29 but Sept. 16. 1957. (R.)

Wk done along road and in adjacent corn
on N. side of road, down first road bridge
below station. (ab. 1/2 m.)

Trimastix red-leg. One on stony soil.

Mesochorus plattii rubripennis. A few
under oaks and junipers and one on roadbed.

Neiastus benjamini. Scattered. One both
roadbed and on adjacent stony soil.

Conalcaea huachuana. Sw. seen on

stony soil under tree corn. One taken.

Melanophus cakeris Abundant. A few
long-winged. Jws. numerous.

Md. differentialis. One taken in station
and patch.

Urch. $43 + 594 = 637$

Other ins. $10 + 98 = 108$

1957.31 (1957.101B). Same as 1957.29.
but Sept. 16. 1957. (R.)

Yuccinia two running on ground in open
grass under trees.

Proctos Fer. 1 ♀. In shade under trees.

Arphia Sw. jws. on ground.

Trimastix blue-winged. 1 ♀ on edge of
stony wash

Conalencia huachuana. Local in moderate numbers. Not restricted to dead oak leaves, but always in shaded areas.

Colth. $22 + 637 = 659$.

Other ins. $2 + 108 = 110$.

1957.3 (1957.102A) ^{Same loc. but in Station} ~~Same loc. as 1957.31 but~~ ^{540 ft. E.}
Sept. 17. 1957. (R) Along road surface

and in shady areas within station ground about cottages and between house and laboratory.
Stegmomantis 10 kept from Fall woods.

Trich. pallidipennis. A few, one taken.

Hierac. lachina. A number, sev. taken.

Conozsa carnata Abundant, great imitation in color true of ♀♀. Chiefly on dusty road surface.

Trachyrhachis hinox atop. A fair number, well distributed, on road surface.

Melanophus labialis. Very common in Fall woods, many immatures.

Colth. $91 + 659 = 750$.

Other ins. $3 + 110 = 113$.

1957. 33. Southwestern Research Station,
Can Creek, Chiricahua Mts., Cochise Co.,
Arizona. Sept. 17, 1957. 5400 ft. (R.)
Work in the low meadowy spot near the
spring, and largely under willows, where
I worked in 1956.

Paratettix locally common. Both adults
& juvs. Less prevalent in the wetter spots
than Tettigidea.

Tettigidea more localized than
Paratettix, as I had previously noted.

Both ads. & juvs. Prone to be in the wetter
section.

Elisosterna carolina. Numerous
in sunny spots, even when damp.
Performed an aerial dance suggesting
Aeroboreutes but not rising more
than 15 feet or so from the ground. I
had never seen the species do this previously.
Conakana A single ♀ in grass
under the willows. An unusual
site for the species.
Nemobius juvs. sept.

leth. $118 + 750 = 868$.

leth. ins. $4 + 113 = 117$.

1957.34 1 m. below Portal, Cochise Co., Arizona.

Elev. (^{about} ~~1000~~) 4600 ft. Sept. 18, 1957. (R.)

Upper brush country, with much mesquite, some acacia, a great deal of tumble weed, no cactus or sotillo, a little Kochelina, and a limited amount of grass. Numerous strong small shallow washes.

No great variety of Ulethoptera.

Trin. pallidip. Abundant, several.

" red-leg. Few, very local.

Cibolarius arides The only one taken was the only one seen. On strong soil.

Brachystro. fervens, abundant, mating, apparently taking refuge in the dense mats at the base of mesquite clumps. Active. Many on road. The ♀♀ can bite very definitely when held.

No jms. seen.

Mel. laticornis A very few. One long-winged ind. taken.

Hemiteles rather general, but not common. Apparently they seem to take refuge in the green tumble weed.

Uleth. 42 + 868 = 910.

Other spp. 14 + 117 = 131.

1957. 35 As data as 1957. 29 but Sept. 18, 1957.
(R.).

Aspilota 1 juv. in oak woods.
Conozsa carinata on road surface in station
ground.

Helictes lucy. found near rock surfaces,
but not invariably.

Mel differentialis on road surface in
station ground, clearly from adjacent
weed patch.

Conalanea brachycoma Local, apparently
in small colonies. Sometimes out in bright
sunlight. A few were in center. No
juv. seen.

Chaperomera 1 ♂ in station ground. Not
personally collected.

Orth. $23 + 910 = 933$.

Other ins. $1 + 131 = 132$.

1957. 36 Southwestern Research Station, Carr Creek,
Chiricahua Mts., Cochise Co., Ariz. Elev. 5400 ft -
5500 ft. Sept. 19, 1957. (R.).

Work done from a short distance above the
first road bridge above the station back to
the station, following wooded patches close
to, or on islands in, the wash.

Aspilota. Small juv. at several different
places. Both in open and under rocks.

Trim. three-winged. One on rocks just above bridge (5500' +), another seen & lost below same.

Helinaestus truj. Local, usually near rocky or stony spots but not restricted to wash.

Conalcaea huachucaeana. Local, in small groups. Usually on or near dead oak leaves under shade of oaks or junipers, but occasionally in open close to the preferred habitat.

Orth. $32 + 933 = 965$.

Orth. ins. $5 + 132 = 137$.

1957.37 Southwestern Research Station, Chiricahua Mts., Cochise Co., Arizona. Elev. 5400-5500 feet. Sept. 19, 1957. (R.).

Work was done adjacent to the road branching off to the Dr. at the Station and then back close to the wash above the Station. Open sunny slopes, stony or grassy, and the under oak condition were examined.

Amphisp. Juss. at a number of points.

Trim. red-legged. A single ♀ in open stony slope. All seen.

Mutilla plattii subripennis. A single female in sunny grassy spot. All seen.

1957.37 (cont.)

Helictes tujamini. A few in more open, usually ~~open~~ sunny spots.

Mel. tahirii. Locally numerous, in more open areas usually, occasionally in shade, generally where there is grass. Numerous juvs. here. No long-winged ones taken.

Conalcaea horachucana. All seemed were taken near the Can Creek wash just above station.

Conalcaea humphreysi. A male and two female taken in several localities along the bank road, always in more open spots than frequented by C. horachucana.

Wth. $31 + 965 = 996$.

Other ins. $13 + 137 = 150$.

1957.38 Can Creek Canyon, 1 m. below Southwestern Research Station, Chiricahua Mts., Cochise Co., Ariz. Elev. 5300 ft. Sept. 20, 1957. (R.)

Work done in three areas: under oak - juniper; along banks - strand of (a running) tributary

Can Creek, and in an abandoned alfalfa field bordering oak - juniper woods.

Alysiid juvs. A few taken in the field.

Conozon carinata. A few in field.

Helictes tujamini. A few along stream bank.

Elisasteria carolina In the old field.

Melanophes laticornis. Very abundant in the old field - a few long winged.

~~Corymbus~~ Conalcaea luscianana. A very few in the oak-juniper woods on the ground, but the majority in the old field where it clearly bordered the oak-juniper woods.

Paratettix. A number close to stream.

Ellipes. One ditto.

Stagmomantis limbata 1 ♀ kept in old field

Orth. $92 + 996 = 1088$.

Other iss. $23 + 150 = 173$.

1957.39 As 1957.37 except that all work was done along or adjacent to the Cima Road (that is Terr.). Elev. 5400-5500 ft. Sept. 20, 1957. (R.)

Psolocaea A single one kept on a relatively bare stony slope.

Aphis A number of species, one taken. Barren areas.

Thrips. red-legged. A single ♀ seen - taken on stony slope.

Helicostus trysanini. Rather frequent on more stony areas.

Metatrypa plattis rubripennis. Local, on the more stony and more barren slopes. All taken ♀♀, perhaps near end of its annual cycle.

1957.39 (cont.).

Melanoplus laticornis Almost everywhere: A few long-winged ones taken.

Chalcidius humphreysii. Not at all numerous on the sunny sunny and thinly grassed slopes. ~~Not~~

C. huachucae. Local, and not as strictly limited to oak areas as I had believed. Several times taken close to C. humphreysii habitats. I think the ranges of the two (entirely) just touch or narrowly overlap here.

Orth. $32 + 1088 = 1120$.

Orth. no. $2 + 173 = 175$

1957.40 As 1957.28 but Sept. 21, 1957. (R.)

Aspilota sp. juv. in bare spots.

Tomonotus ferrugineus Juv. One little of ^{dark} oak leaves under oak & juniper.

Heliastus benjamini A number in bare or rocky spots.

~~Conalcaea~~ Conalcaea huachucae Scattered.

Local. One dead oak leaf litter under oaks & junipers.

Oecanthus sp. 1 juv. swept.

Orth. $15 + 1120 = 1135$

Orth. no. $14 + 175 = 189$.

1957.41 As 1957.33 but carried up the
bordering south slope a distance into the
oak - juniper forest. Elev. 5400 - 5500 ft.

Sept. 21, 1957. (R.).

Paratettix mx. Locally abundant in the more
moist areas, juns. largely predominating.

Tettigidea much less numerous than Paratettix,
more local than Paratettix - few adult. Probably
more frequent in the very wet sections.

Chrysosterna car. Quite a few in the
meadowy spots along the rill. brook.

Melanoplus diff. A few in ranker growth
in meadow.

Conalocera huachucaeana. A few in the lower
edge of the woodland.

Heliocten benjamini. A few on strong outcrops
near meadows.

Orth. $110 + 1135 = 1245$.

Other ins. $4 + 189 = 193$.

San Simon Valley, Cochise Co., Arizona.
1957.42 { 4 mi. S. of Rhodes, N. M. along
main highway. Elev. 4400 ft. (altimeter)

Sept. 23, 1957. (R.).

Flat of valley with small dry mud flats,
mesquite, acacia, a few nopal, numerous
clumps of rabbit weed, scattered tall

1957.42 (cont.)

thick grass and numerous low plants.
Wind strong.

Opeia 1 ♂ swept, 1 ♀ lost. All seen.

Agonotithis 1 ♀ swept. All seen.

Aulocara Not common, sometimes on
dry mud playa-like spots. 4 taken.

Boreodon Not numerous. All ♂♂ seen, taken
a few ♀♀ lost. Usually in the grassier
areas.

Aphia pseudonictana. A few seen, one taken,
long flying.

Trimerotropis pallidip. several.

Trachyrhynchus hirta subsp. Well distributed,
but more usually on the bare areas.

Brachystola. A few. No ♀♀ seen. Two
males taken.

Juv. oedipodid. One taken, female?

✓ Paropomala. A very few, in the taller
grass.

Phostaliotes rubescens. A few.

Mel. regalis Scattered, not numerous.

" labialis Swarming everywhere.

Long and th. w.

Orth. $78 + 1245 = 1323$

Orth. ins. $14 + 193 = 207$

1957.43 Southernmost Research Station, Carr
Creek Canyon, Chiricahua Mts., Cochise Co., Ariz.
Elev. 5406 ft. Sept. 24, 1957. (R.)

Within Station grounds, working on mud
patches, abandoned alfalfa and dirt road
surfaces.

Trim. pallidip. num. as usual on bare spots.

Trachypachis lemnis not sp. A few locally on
bare dirt road.

Coryza carinata Numerous on dirt
road. 1 juv. Taken also.

Mel. laticornis Abundant in all veg. &
also scattered over ^{dirt} road.

Mel. diff. A few in tall grass & abandoned
alfalfa.

Orth. $35 + 1323 = 1358$.

Other ins. $1 + 207 = 208$.

1957.44 As 1957.39 but Sept. 24, 1957. (R.)

Aphid. 1 juv. only ^{one seen} strong and gravelly slope.

Coryza carinata. A single one in a small
dry wash.

Helictes benjamini. Small on rocky surface.

Metabryna plattii rubripennis. Locally
numerous on gravelly and stony surfaces.

Not at all elusive. Wings both red & yellow.

1957.44 (cont.)

Melanoplus calvus. Relatively general,
where there was any grass or other low
vegetation. Some macropterus, very variable
in size.

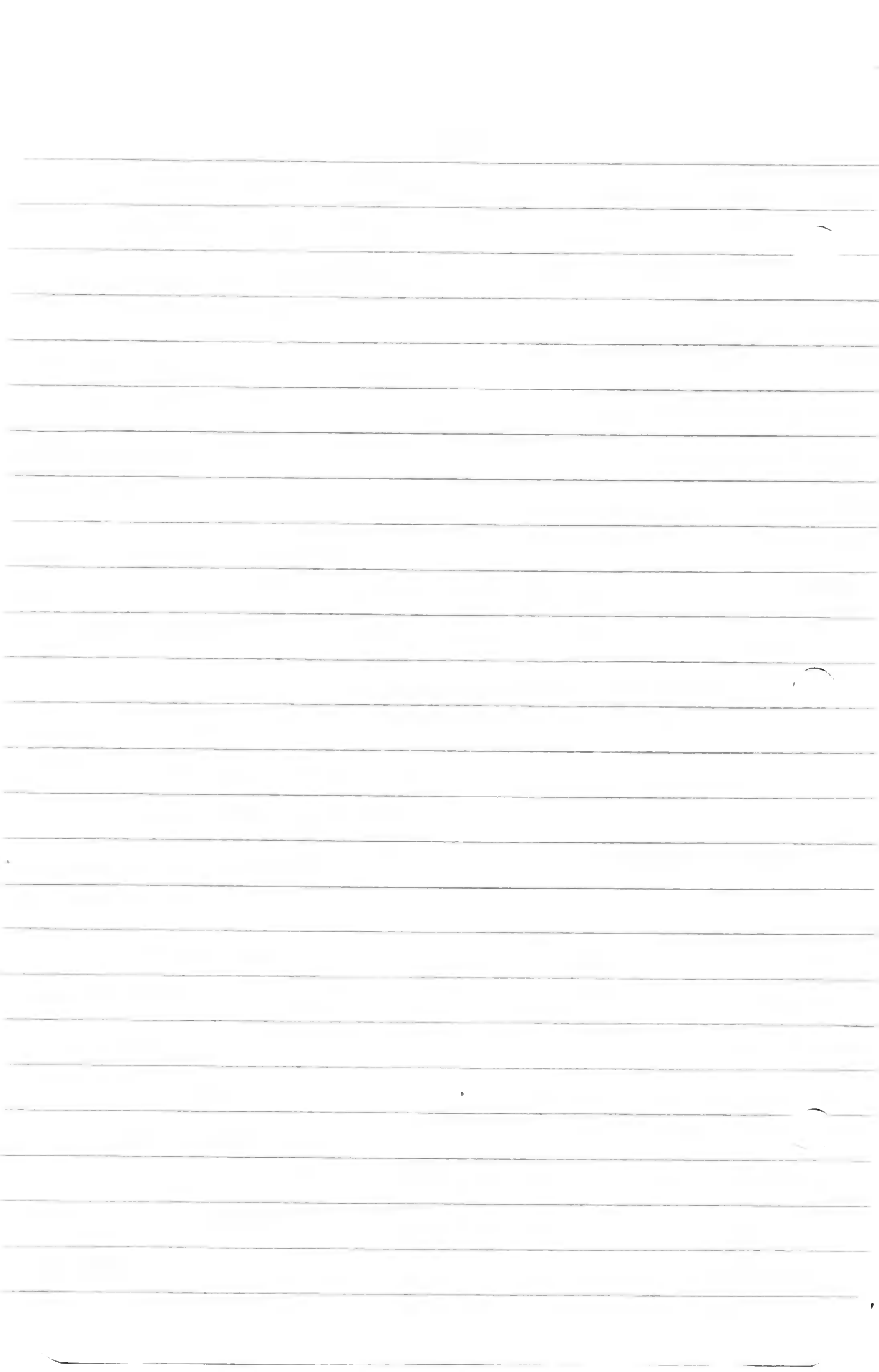
Conalcaea huachuana. Numerous small
clony. Apparently more particular about
corn than C. humphreysii. More widely
distributed than latter.

C. humphreysii. Very local, only in small
spots, there more open to the sun, slopes,
less corn than where C. huachuana is
found.

Acanthaceae 18 kept from grass under
jumper.

Uth. $52 + 1358 = 1410.$

Other vis. $5 + 208 = 213.$



1960.

1960.1. W. side of Rays Hill, 1 m. E. of Brezewood,
Bedford Co., Penna. Elev. 1750 ft. (altimeter).

VIII. 23. 1960. (R.) Roadside + edge of deciduous
woodland. little Q. - mostly juvs.

Empidonax 1 ad. ♂ and several immat. ♀ swept from
border of forest.

Nonettia from cut-off roadside ground litter -
dry. Adults + juvs.

Amblycorypha 1 immat. swept.

Melanoplus sp. juvs. only.

Orth. 0 + 10 = 10

Other vis. 0 + 10 = 10

1960.2 E. side of Sidelong Hill, Fulton Co. Pa.
Elev. (ex top bench mark) 2180 feet. Aug. 23, 1960.

(R.). Roadside and border of deciduous woods
(chiefly oaks). Slopes very steep - working area
very limited. Nothing in woodland as far as practical
to go.

Leucisomeria viridis A few adults

Leucisomeria carolina One adult taken and a number
of others seen.

Melanoplus viridis 1 ad. - juvs. Only adult seen.

Encyrtolophus sordidus 1 in instar preceding mat.

Nemobius Three adults, both sexes, in low ground
litter -
cone.

Orth. 14 + 10 = 24

Other vis 16 + 10 = 26

1960.3. 4 mo. W. of Mc Connellsburg, Fulton
Co., Penna. (on U.S. 30) Elev. (altimeter) 1325 feet.

Aug. 23, 1960. (R.).

Roadside with grass, shrubby marginal to
almost completely deciduous woodland (chiefly

oaks). *Diapheromera*, very juv. swept

Tenebrio sp. 1 ♀ in instar preceding maturity. Swept
from roadside foliage.

Homotettix, very few juvs. swept.

Hippiscus (?) 1 juv. on ground.

Melanoplus ~~femoratus~~ luridus A very few.

" *hirtatus*, sev. adults seen, 1 taken

Nemobius ^{*femoratus* a few.} a few from ground litter.

{ *Leucisphaerogramma bollii*
Hispanotettix can. } Too elusive to get on
the terrain.

Orth. 28 + 15 = 39.

Orth. mis. 26 + 5 = 31.

1960.4 2 mo. W. of Mc Connellsburg, Fulton Co.,
Penna. Elev. (altimeter) 1300 feet. VIII. 23, 1960 (R)

Roadside with and grasses at border of field of
clover. Japanese beetles abundant.

Chortophaga 1 ad. ♂ • very small juvs.

Melanoplus ~~femoratus~~ vinnatorum,
a few adults

Mel. hirtatus 1 juv. only

1960.4 (cont.)

Nemobius 1 ad. taken

Ceanothus 4 impt.

Crk. $17 + 39 = 56$,

Other vis. $32 + 31 = 63$

1960.5 Bald Knob Summit, Allegheny Mts.,
Bedford-Somerset Co., Pa. Elev (barometer) 2900 feet
VIII. 24, 1960 (R.)

Second growth chiefly deciduous forest (largely oak),
with fire lane cut through along edge of escarpment.
Areas of sphagnum, much sweet fern, tall grass, etc.
Chorthippus ads. & juvs. in various stages, chiefly near
sphagnum.

Nonotettix A few, apparently all juvs.

Melanoplus brevitatus 1 ad. ♂, sev. others seen.

" spp. 1 ♀ and sev. juvs.

Arphia appm. sulphurea 1 ad. 1 ♀.

Sphargnum trilli 1 ad. ♀ - another seen.

Hesperotettix carolinensis 1 ♀, others seen.

Nemobius A number swept from ground cover.

Crk. $37 + 56 = 93$.

Other vis. $4 + 34 = 38$.

1960.6 $\frac{6}{10}$ m. SW of Roxbury, Somerset Co., Pa.

Elev (altim.) 2350 feet. VIII. 24, 1960. (R.)

Roadside grasses, weeds and screen of trees bordering
cultivated fields. Sweeping chiefly. Everything
recognized taken. (over)

Chorthippus A few, a single adult taken.

Helichromys viridis 1 ad. ♀ taken.

Mel. femur-rubrum Few adults.

" viridatus 1 gravid ♀ taken - all seen

" spp. juvs.

Conocephalus fasciatus 1 ad. ♀ taken

" sp. juvs.

Nemotus A number swept.

Oecanthus Sw. swept.

Orth. 22 + 93 = 115.

Orth. in 0 + 38 = 38.

1960.7. Nemotus Summit, 2 ms. S. of Meyersdale,
Somerset Co., Pa. Elev. (b.m.) 2267 feet. VIII. 24, 1960.
(R.).

In clover field with grass patches.

~~Orth.~~ Urophylloides speciosa a few, both sexes taken.

Helichromys, a single ♀ taken.

Melanophus fem.-rubrum. A number, adults & juvs.

Conocephalus strictus ads. - juvs.

Oecanthus a few.

Nemotus one swept from ground cover.

Tetrix 1 swept.

Orth. 24 + 115 = 139.

Orth. in 7 + 38 = 45

1960.8 U.S. Route 219 1/2 m. S. of Puma. - Maryland
line, Garrett Co., Md. Elev. (altim.) 2600 feet VIII. 24. 1960.
(R.)

Roadside (with drain) - tall grass and weeds,
partly mowed, bordering deciduous forest (oaks,
ash, locust, maples, etc.) - undergr. in forest
rather open. Nothing at all seen in the woodland,
although a quarter of an hour was spent searching
its ground cover and undergrowth.

Tettigidea 1 juv. myst.

Heteromys 1 juv.

Conocorypha sp. juv.

Urophylloides speciosa 1 juv.

Melanoplus sp. juv.

Heterosternus carolinensis - a few, one taken

Neurolepis 7 or 8 taken.

Orth. 12 + 139 = 151.

Orth. ins. 2 + 45 = 47

1960.9 6 ms. E of Piney Grove, Garrett Co.,
Md. (on US 40) Elev. (altim.) 2700 feet. VIII. 24. 1960
(R.)

Roadside woods and edge of clover field, also some
old road pruning. Every species seen, taken.

Tettigidea 1 juv.

Chorthippus A few adults, also juv.

Urophylloides speciosa. A very few adults - some
juv.

Conocorypha 1 juv.

Spharagemon bolli Sw. seen, 1 taken.

Heterosternus A number seen, 1 taken.

Sundderia sp. 2 ad. ♀♀ Taken.

Nemobius a few.

Oecanthus a number taken.

Orth. $29 + 151 = 180$.

Other ins. $1 + 47 = 48$.

1960.10 Top of Allegheny Front, near Hartmansville,
Mineral Co., West Virginia, Elev. (altim.) 2800 feet.
VIII.25, 1960 (R).

In roadside weeds (milkweed, "butter-eggs", daisies,
wild carrot, blackberries, etc.) Nearly everything swept.
Chorthippus 2 juv ♀♀, diff. instars. swept, not
under first fringe.

Chorthippus a few adults & many juvs.

Anthus Two very small juvs.

Melanophes sp. Juvs only.

Nemobius a number swept from low corn on ground.

Oecanthus 1 swept

Orth. $22 + 180 = 202$.

Other ins $6 + 48 = 54$.

1960.11 Top of Allegheny Front, 3ms WSW of loc.
Mineral Co., W. Va.

1960.10 ~ Elev. (altim.) 2650 feet. VIII.25, 1960. (R)

Roadside border of woodland (chiefly oaks,
hickory, etc). Tall grass, sweet fern and various
weeds.

1960.11 (cont.)

Chorthippus few adults, many juvs.

Ampelis very small juvs.

Melanophus fuscus-rufus Few adults + juvs. not
at all numerous.

Scolecophagus 1 ♂ in tall weeds.

Merula 1 taken

Orth. $14 + 202 = 216$

Other ins. $6 + 54 = 60$

1960.12 2.5 mi W. of Gorman, Garrett Co., Md.
Elev. (altim.) 2650 feet. VIII. 25. 1960 (R.)

Roadside bushes and grass

Mel. bairdii 1 ♀, all seen

Merula three seen

Urethra 1 seen

Orth. $5 + 216 = 221$

Other ins. $1 + 60 = 61$

1960 13 4.5 mi. S of Breedlove, Tucker Co.,
West Virginia. Elev. approx 2600 feet VIII 25. 1960 (R.)

Roadside area bordering mixed forest on one side,
scrub cut-over area on the other. Locally wet.

Tettigidea a few, adults + juvs.

Chorthippus A few adults, more many juvs

Conocephalus fusc. Numerous adults, both sexes.

Merula A few.

Orth. $25 + 221 = 246$

Other ins. $4 + 61 = 65$

1960.14 1/2 m. W. of Thomas, Tucker Co., West Virginia.
Elev. (altim.) 3000 feet. VIII. 25 1960. (R.).

Roadside and waste fields - tall grass, much
rust fern, Smilax, ^{golden rod} and scattered boggy spots.

Sole O. taken 1 ad.: no. juv. Chorthippus.

Orth. 5 + 246 = 251.

Other ins. 5 + 65 = 70.

1960.15 Along Shaver's Run, 6.5 ms. E. of Atkins,
(at west entrance of Monongahela Nat. Forest on # 33),
Randolph Co., West Virginia. Elev. (altim.) 2100
feet. VIII. 26, 1960. (R.).

Very wet from morning mists. fog. Roadside weeds
and grasses. Everything recognizable. Taken except slugs.
carolin.

Tettigidea 1 from low corn.

Mel. fuscus-rubrum A few. Both sexes

" mix. atlanticus 1 ♂ same situation.

Scudderella 1 ♂ 2 ♀, perhaps two species, in taller growth.

Conocrepis levis. A few.

Orth. 15 + 251 = 266.

Other ins. 11 + 70 = 81.

1960.16 2.4 ms. E. of Alpina, Randolph Co., West Va.
Alt. (altim.) 3050 feet. VIII. 26. 1960. (R.).

Roadside in mtn. slopes, tall grass, milkweed, wild
carrot, smilax, etc.

Everything recognized taken.

Tettigidea 1 taken. 1 juv. Tettigidea, from 2

Hicostema carolina a number, 1 taken.

Conuraphalus sp. a few adults - 1 juv. taken

Oecanthus nigricornis type - sev. swept.

Orth. 7 + 266 = 273.

Orth. ins 5 + 81 = 86

1960.17 1/2 m. E. of Harman, Randolph Co.,
West Virginia Altitude (altim.) 2500 feet. VIII. 26. 1960
(R.)

Roadside in open deciduous forest. Everything
recogn. taken except one Hicromorpha irides ♀ (escaped).

1 juv. Tettigidea

Mel. f. - 2. a few. ♂ & ♀.

" mex. atl. several ♂.

Conuraphalus 1 juv.

~~Neurobus~~ Neurobus a few.

Oecanthus Two species swept.

Orth. 15 + 273 = 288.

Orth. ins 3 + 86 = 89

1960.18 2.3 ms. W. of Harman, Randolph Co.,
West Virginia. Alt. (altim.) 2600 feet. VIII. 26, 1960
(R.)

Roadside and old field border with stray alfalfa,
this fl., ~~the~~ burdock, etc.

Everything recogn. taken exc. 1 Sphragisma bolli and
1 Chortippus.

Orth. 26 + 288 = 314.

Orth. no. 8 + 89 = 97.

Orphnilla spuria 1 ♀.

Mel. fem.-wh. A few, ♂ and ♀ taken.

Conophalus brevipes Numerous, ad. & juv.
" strictus " "

Numenius A few.

Scolecophagus 1 ♀ in taller weeds.

1960.19 Gladys Fork ~~River~~ River crossing of U.S.
33 E. of Alpena, Randolph Co., West Va.
Elev (alt) 2750 feet. VIII. 26, 1960. (R.).

Roadside tall grass and weeds, and wood
road into deciduous forest. Virtually nothing
along latter. Roadside with tall grass,
milkweed, wild carrot, smilax, blackberry, etc.
Lost Sphragisma bolli ♀, but everything else taken.

1960.19 (cont.)

Tettigidea larval taken - roadside.

Hlichromorpha 1♂ - roadside.

Mel. femur-rubrum larval ♀ taken.

Conoccephalus brevipennis ~~both~~ Adult ♀ ♀ taken,

Disasteris carolina. A number ^{seen}, one taken ^{roadside}.

Nemobius From taken.

Acanthus One kept.

Orth. 14 + 314 = 328.

Other ins. 2 + 97 = 99

1960.20 2.75 ms. W. of Norton, Randolph Co., West Virginia. Elev. (altim.) 2175 feet. VIII.27. 1960. (R.)

Roadside, narrow border of grass and weeds (steep down slopes on either side). Very little Q.

Hlichromorpha 1♀ all seen.

Chama Chortophaga sev. juvs. very small.

Mel. femur-rubrum. A few, also juvs.

Conoccephalus 1 juv. taken

Orth. 9 + 328 = 337.

Other ins. 3 + 99 = 102.

1960.21

5 ms. SW. of Norton, Randolph Co., West Virginia.

Elev. (altim.) 2500 feet. VIII.27. 1960. (R.)

Roadside and cut-over shoulder along deciduous woods. Everything seen taken.

Nemotettix sev. juvs.

Alysiidella spicosa A few representatives

Alysiid (?) juv.

Spharagemon holli 1 taken. Another seen.

Melanophus lundus Three adults, both sexes.

Scolecoph sp. 1 ♀ Taken

Conoclyptus 1 juv. Taken

Memobius A few Taken.

Uccanthus 1 Taken.

Orth. $24 + 337 = 361$.

Other ins. $2 + 102 = 104$.

1960.22 5 ms. E. & E. of Buckhannon,
Upshur Co., West Virginia. Elev. (alt.) 1725
ft. VIII 27. 1960. (R.)

Roadside (narrow) along deciduous woodland.
Very little.

Tetrix 3 juv. impt

Mal diff. 1 in instar preceding mat.

Conoclyptus livip. 2 ad. ♂♂.

Uccanthus ad. + juv. Taken

Orth. $9 + 361 = 370$

Other ins. $5 + 104 = 109$

1960.23 1/2 m E. of Upshur Co. line on U.S. 33,
Randolph Co., West Virginia. Elev. (alt.) 1900 feet.
VIII. 27, 1960. (R.)

Roadside in rather heavy deciduous forest with
rhododendron thickets. Very little sun.

1 juv. Tettigidea

1 Mel. fumus-rubrum ♀.

Crimphales brevipes ♂ & ♀.

Nemobius 2.

Orth. 6 + 370 = 376.

Orth. mis. 7 + 109 = 116

1960.24 ~~to~~ 1.4 ms. E. of Harman,
Randolph Co., West Virginia. Elev. (alt.) 2125
feet. VIII. 28, 1960. (R.)

Roadside with tall ~~grass~~ growth, largely
sumac, and milkweed, and adjacent
abundantly overgrown old quarry. Both
situations worked. All species recognized
taken.

Tettigidea sp. juv.

Chorthippus 1 ♂, 1 ♀ (latter female)

Helicromorpha several ♀♀

Measoptera carolina Several seen, one taken.

Sphingomon belli One taken

Melan. fumus-rubrum Numerous.

Melanoplus diffusus 1♂ taken, alt. sum.

Sordidula sp. 1 ad. ♀ - 1 juv. taken

Nemobius - a few.

Oecanthus - sev. taken

Orth. 22 + 376 = 398,

Other ins. 7 + 116 = 123,

1960.25 1.5 ms. E. of Pendleton - Randolph Cos.
line, Pendleton Co., W. Va. Elev. (alt. sum.) 2600 feet.

VIII. 28, 1960. (R.).

Roadside shoulder in gorge. Tall grass,
wild carrot, poison ivy (everywhere), milkweed,
some sumac. Everything recognizable. Taken

Nomotettix 1 taken.

Hisrosteira carolina A few, 1 taken.

Mel. diff. 1♂ taken

" fun.-rub. 1 taken. Sordidula 1 ad. ♀ taken.

Aphid (?) sev. very small juvs.

Nemobius One taken.

Oecanthus sev. taken.

Orth. 11 + 398 = 409.

Other ins. 3 + 123 = 126.

1960 26 2 ms. N. of Riverton, Pendleton Co.,
West Virginia. Elev. (altim.) 1700 feet. VIII. 28. 1960.
(R.)

Old field and cow pasture. Tall weeds, thistles,
tall grass on places. Everything recognizable. Taken.

Chloromorphus vindex 1 ♂ Taken.

Hippodamia oculata 2 ♀ Taken - all seen.

Melanoplus f. - r. - r. - r. sev.

Coriphagus stratus 1 ♀ 1 juv.

Neocleis 1 ♂ Taken

Crematogaster ~~1 ♂~~ ^{1 ♀} Taken.

Catch. $10 + 409 = 419$

Cether ins. $1 + 126 = 127$

1960. 27 4.5 ms. W. of Franklin, Pendleton Co., West
Virginia. Elev. (altim.) 2200 feet. VIII. 28, 1960 (R.)
Roadside. Very little. One Saundersia lost.

2 Melan. f. - r. - r. all taken.

Catch. $2 + 419 = 421$.

Cether ins. $4 + 127 = 131$

1960. 28 3.5 ms. E of Franklin, Pendleton Co., West
Virginia Elev. (altim.) 1975 feet. VIII. 28, 1960. (R.)

Roadside. Very little.

Schistocerca about struck by car, still alive when picked
up.

Chrysomela 1 juv. ♀ swept.

Mal diff. two ♀♀ taken, all sum.

Hippocampus? 1 juv.

Ceranthus Juncal.

$$\text{leth. } 7 + 421 = \text{428, } 428$$

$$\text{leth. ins. } 0 + 131 = 131.$$

1960. 29 3 ms E. of Brandywine, Pendleton Co.,
West Virginia. Elev. (alt.) 2200 feet. Aug. 28, 1960.
(R.)

Roadside and undisturbed wood road, little.

Atlanticus on dead leaves along wood road.

Alchomorphus viridis 1♂ - all sum.

Suddria sp. 1 juv. kept.

$$\text{leth. } 3 + 428 = 431.$$

$$\text{leth. ins. } 0 + 131 = 131.$$

1960. 30 2.5 ms. E of Top of Shenandoah Mtn. (on
U.S. 33), Rockingham County, Va. Elev. (alt.)
2650 feet. Aug. 28, 1960 (R)

Steep roadside under forest canopy. little

Arphia? juv.

Pharagmus elli 2 sum, 1 taken.

$$\text{leth. } 4 + 431 = 435$$

$$\text{leth. ins. } 1 + 131 = 132$$

Southeastern Arizona Station
San Carlos County, Mexican border
Cochise Co, Ariz. Elev. 5400 feet.

153

✓

106
30
4
2
11

~~✓~~ Taken with light at night
VII. 6 1961 (Fader)

106 ✓

Glenn ranch station

VII. 7 1961 (R. E)

30 ✓

Taken with light at night
VIII. 7 1961 (Fader)

4

9 mi. SW of Rodeo,
Cochise Co, Ariz.
4500 feet (R. E)
VIII. 8 1961

130 ✓

1 mi. SW. of Apache,
Cochise Co, Ariz.
4600 ft. ~~W. E~~ (R. E)

VIII. 8 1961
(R. E)

79 ✓
70
149 (80 ✓)

Ochoa in E. of Portal,
Cochise Co, Ariz. 4900 ft.
VIII. 8 1961 (R. E)

25 ✓

with
~~at~~ light at night
(George Hagg)

8 3 4

Taken with light at night
VIII. 8 1961 (Fader)

12 ✓

One-half m. SW. of Apache,
Cochise Co., Ariz. 4600 ft.
VIII. 9. 1961
(Martinez, Lambert & Eades)

20

✓

Barfoot Park, Chiricahua
Mts., Cochise Co., Arizona. 8100-8400 ft.
VIII. 10, 1961 (R. & E.)

115

✓

~~at night.~~
Taken with light.
VIII. 9, 1961. (Eades)

2

1 m. N. of Portal, on
Galcyville Road, Cochise
Co., Ariz. 4900-5000 ft.
VIII. 10. 1961. (Eades)
Taken with light at night.

26

✓

~~at night.~~
Taken with light
at night. VIII. 10. 1961 (E.)

3

Along Animas Road 1.9 m.
E. of junct with U.S. 80,
Hidalgo Co., N.M. 4100 ft.
VIII. 11. 1961 (R. & E.)

31

✓

Antelope Pass,
Peloncillo Mts.,
Hidalgo Co., N.M.
4400-4600 ft. (R. & E.)
VIII. 11. 1961.

39

✓

Animas, Hidalgo Co.,
N.M. 4405 ft. VIII. 11. 1961
(R. & E.)

37

✓

5 m. N. of Douglas, Cochise
Co., Ariz. VIII 12, 1961. (R. & E.)

45

✓

Nr. Silver Creek, ab. 13 ms. NE
of Douglas, Cochise Co., Ariz
4500ft VIII. 12, 1961. (R. E.)

100

✓

VIII 12, 1961.
(R. E.)

70

✓

San Simon Valley, 7.2 ms. N
of Portal turnoff, Hidalgo Co.,
N.M. 4200ft. VIII. 13, 1961. (R. E.)

33

✓

Road pass of U.S 80 through
northern Peloncillo Mts., 13 ms
N. of Armas Turnoff, Hidalgo
Co., N.M. 4700-4800ft. ~~tr~~
VIII. 13, 1961. (R. E.)

41

✓

Along road S from
Station. VIII. 14, 1961 (R.)

11

✓

6-8 ms NE. of Douglas,
Cochise Co., Ariz. VIII. 14, 1961

4

Sloan Ranch, mouth of
Skeleton Canyon, Peloncillo
Mts., Hidalgo Co., N.M. 4675ft
VIII. 14, 1961 (Eades)

38

✓

Lower Skeleton Canyon,
Peloncillo Canyon at state
line - Hidalgo Co., N.M. - Cochise
Co., Ariz 4800ft VIII. 14, 1961 (Eades)

10

✓

1961.

1961.1 Southwestern Res. Station, Carr Creek Canyon,
Cochise Co, Arizona. VIII 6. 1961. (Eades) At night
Near light. Heterid. Small gryllid. Lepus robustus ♂.
Remains in tall weed of station yard, spotted with a flower. Stagmomantis lineolata 1♀ & pub. 1 juv.

Scudderia sp. 2 ♀

Hesiretina can. 1♀

Melanoplus differentialis Abundant - some quite black,
~~almost all~~ numerous juv.

Conalcaea huachuana. Numerous, both sexes. Not
moving, inactive, apparently at rest from night
but in muddy field in station, not where I have
usually found it under oaks, etc. (Inv. ♂ & ♀
were not gutted, so the spermatheca would not be
damaged.) Small size - dry spring result?

Melanoplus desertorum? Taken as C. huachuana
♂ & ♀ don't look just right for des. but probably is.
Length, 106.
Other inv. 0

1961.2 Same area. VIII 7. 1961 (R.-E.)

Look up along main wash above station as far as
road bridge. Mainly in boulder channels and
surface of oak - juniper covered ground on both
sides. Very little to be found.

Conallena huachuensis 2 nymphs 1 ♂ & 1 ♀. Uthman Jim, near
Palm Springs, Calif. ^{dead with larvae on ground.}
Polysia t. pusilla 1 ♂ 1 ♀ Taken. Few seen. in
wash.

Heliothis bruj. Moderately numerous, local,
almost entirely in wash. 1 juv. also taken.

Termitia fluv. 1 ♂ All seen. in wash.

Termitopsis struma type. Two males. in
diff. spots ^{among} dead oak leaves on ground.

Orth. $29 + 106 = 135$

Uthman Jim. 1.

1961.3 Smithson Res Station, Ariz

VIII 7, 1961 at night at light

Graphomera = 1 fly

Orth. $3 + 135 = 138$

Uthman Jim. 1.

1961 4 9 ms. SW of Rodeo, in Cochise Co., Ariz.
Elev 4500 feet. VIII 8, 1961 (R+E).

Roadside along highway and railroad. Brush grass, Syntherisma
sp. Scattered mesquite & a few yucca, with bare patches
where road material had been scraped up.

Heliothis bruj. Supt. apparently on ground surface.

Graphomera general in brush grass.

Paratellus largely in brush grass

Mermiria mexicana ~~seen~~ in brush grass

Parapomata seen in brush grass

Syntherisma in brush grass

Agrotis tex. seen on ground.

Agrotis pseudomexicana 1 juv. - all seen

1961.4 (cont.)

Poohessa local on fr. surf.

Endallanus 1 on bare ground

Conozza carinata few on bare ground.

Herostemma On bare ground.

Mesothugma A few, same habitat.

Trimerotropis stans type. Numerous locally on bare fr.

Hesperotithys few in composites.

Melanoplus laticornis type. local, few.

" aridus them in bunch grass, other low com.

" long-winged ^{2 spp.} few in low com.

~~Elm~~ Crematogaster altipennis 5 in 1 grass (1 lost) =

2 others in low com.

Conocpt. sp. 1 juv. empty.

Brachystola A very few very small juvs.

both. $123 + 138 = 261$

Other inv. $6 + 1 = 7$

1961.5 1 ~~mi~~ m. SW. of Apache, Cochise Co., Ariz.

Elev. 4600 ft. (altim.) VIII. 8, 1961. (R.E.)

Roadside 1/2 mi. S. P.R.R. Bunch grass, scattered
mesq., some cactus melon plants, some tumble weed, some
bare soil where scraped for road material.

Gerisniops. 1 in a clump of bunch grass - seen & captured
there.

Stenomatus, a single one, on ground.
Stenomatus bimaculatus 1 ♀ = 1 juv. ♀ in bunch grass.

Mermiria nemex. Rather general but mod. com.

Typhula. A few in bunch grass areas.

Blattellidius A few, on ground.
Cimex carinatus On bare ground, a number.
Trin. pallidipennis. 1 ad. taken, all wings on bare ground.
 " Strom type (?) In bunch grass near on ground.
Mal. short-winged. Numerous & appar. several species.
 Rather common.

Conalcaea humphreysi One colony in mesq, & in
 low-bunch grass.

Paropromela In bunch grass.

$$\text{Arth. } 77 + 261 = 338,$$

$$\text{Arth. no. } 2 + 7 = 9$$

1961. 6 1/2 m E. of Portal, Cochise Co, Arizona.
 Elev 4900 feet (altim) VIII. 8. 1961 (R. & E)

Roadside. Bunch grass & much mesquite: rabbit weed,

^{Pseudocymus}
~~Diaphanomeria~~ several except. Adults ♂♂ juv.

Paropromela Sw. in rabbit weed.

Amphitornis 1 - all seen.

Psocoptera 1 on fr.

Cibicides 1 on fr. All seen.

Asperotettix Occur in rabbit weed.

Melan. curius type Sw.

long-winged. Occur.

$$\text{Arth. } 15 + 338 = 353$$

$$\text{Arth. no. } 9$$

1961.7 Same as 1961.6

George Hogg

VIII. 8 1961.

(~~Edades~~)

At night.

Artemesia 2♂.

Hemiteles 2♂.

Triclistus pallidipennis 1♀.

Microgaster 1♂.

Euclyptus imm. 1♂.

With. 7 + 353 = 360

Other imm. 1 + 9 = 10

1961.8 Smithsonian Research Station, Ariz.

In imm. vic. of laboratory building.

VIII. 8 1961 (Edades) At night

Stenomacrus limbata 1♀. In black locust

Diaprosoma 1♂, 2 immat. ♀♀. One immat. ♀ of lab.

wall. Other imm. ♀ was hanging beside exuvia in black

locust, ♂ hanging from this female, in this position for

Hoplosphyron? 3♀ at base of long wall of lab. building.

Microcentrum 3♂, apparently representing two

species. At lab. by lot.

With. 10 + 360 = 370.

Other imm. 2 + 10 = 12

1961.9 Same loc. as 1961.5. VIII. 9. 1961.

(Martenson, Lambert & Cazier)

In area of Solanum.

Tropidolophus formosus 7♂, 1 juv. ♀.

Orth. 8 + 370 = 378

Uther ins. 12 + 0 = 12

1961.10 Barfoot Park, Chiricahua Mts, Cochise
Co, Arizona. VIII. 10. 1961. Elev. 8100-8400 ft. (R & E)

Mountain meadow surrounded by forest of pine &
fir, some pine the ponderosa type, the others with
a bluish bark, the north facing slope with more
fir than the park area, which has an open meadow
with tall bunch grass, a wild iris (in seed pods) and
patches of a white flowering shrub. David worked up
the south-facing slope to 300 feet above the meadow
(included in the above figures). This had pine at
the base of slope, then oak scrub, then bare talus, then
more oak scrub passing into mesquite, yucca, etc. at
top. The entire slope covered by loose talus. The ^{north} ~~south~~
facing slope had pine with occasional fir, little
ground cover except pine needles and occasional
open spots. Reached by examination about 200 feet.

Geranium on rocks with yucca and mesquite.

Paratanaisius on fragrant plant in yucca and ^{at 8400 feet}
mesquite area. Elev. at 8400 feet

1961.10 (cont)

Amphitomus few in iris patches in meadow. 8100 ft.

Chorthippus 1 ♂ + 1 juv. in meadow.

Ceryle ? juv. Meadow - top of ridge to north.

Trimerotropis red-legged. In meadow and town edge of forest, and in clearing in pine forest.

Trimerotropis blue-legged. ♂ on loose rocks mixed with oak scrub on higher part of south-facing slope (8400) & in small clearing in pine forest on N. face slope (approx. 8200 ft.)

Trimerotropis yellow-legged. 1 at junction of pine woods & meadow.

Melanoplus approx. aridus group. Juvenal in meadow, slopes wooded and in open spaces.

Melanoplus chiricahuensis ? In meadow, but too taken.

Conalcaea sp. ? More common in grass and mint in oak scrub on slope (8100 - 8400 ft.) Occurring less abundantly along the forest border of the meadow. A few males and most females still juv.

Centrophilus valgus type. One male under a pine log in meadow, all others were under rocks or in or under decaying wood in pine forest.

Stenopelmatus. Two under pine log in burrows, in meadow. (11 in alcohol)

$$\text{Orth. } 110 + 378 = 488$$

$$\text{Uther m. } 5 + 12 = 17$$

1961. 11 Southwestern Research Station, Cochise Co., Ariz.
VIII. 9. 1961. Taken at night, not necessarily attracted to
light. (Eadie)

Conalanea 1

Hypsothymus 1

Orth. 2 + 488 = 490

Others 0 + 17 = 17

1961. 12 1 m. NW. of Portal on the Galeville Road,
Cochise Co., Ariz. Elev 4900-5000 ft. VIII. 10. 1961. (E.)
Night work with light. Mesquite predominating, much
bare ground.

Alipheromena ♂ - juv. ind. [an adult or nearly adult
female of uncertain juv. pos.] In mesquite.

Stagmomantis 2 juv. in mesquite.

Trimantropis sterna type. Two on ground
pilled. One on ground.

Neotoma 1 ♀ on ground

Nesporotettix ♂ in dead brush grass, ♀ juv. in comp.

Insara elegans 5 in mesquite.

Cremopoda 3 species, all in mesq.

Gryllus live on ground, feeding on oat meal here.

Centrophilus 2 ind. " " " " "

Orth. 25 + 490 = 515

Others 0 + 17 = 17

1961. 13. Instrumentation Research Station, Carr Creek
Canyon, Cochise Co., Ariz. Elev. 5600 ft. VIII. 10. 1961
At light at station. (E.)

Microcraneum, Scauderia & brown Eremopoda?

One of each.

Orth. $3 + 516 = 519$

Orth. in. $0 + 17 = 17$

1961. 14 Along Animas road 1.9 ms. E. of junct.

with U.S. 80, Hidalgo Co., N. M. Elev. 4100 ft.

VIII. 11. 1961. (R-E).

Moist area with total plant cover, much of which was
tumble weed, scattered bunches of very tall (6 ft) grass.
This was at the base of a bunch of gravel on which was
an almost exclusion zone of Parraia.

Rhabdoceratite 1 nearly adult ♀ & sev. juvs., taken
from Parraia.

Mercuria appar. localized in the tall tufts of
grass in the ^{area} ~~moisture~~, males often stridulating. In
one spot four males were assembled, fanning
antennae and actively stridulating.

✓ Paropomda 1 in tall grass in moist area.

Syrphula 1 " " " " " "

Trimerotropis stromboli type. one on truck.

" pallidus. one ditto

Melanophus sp. 1 in tall grass in moist area.

Onychomys carinatus one on bare spt.

Heteromys one on bare ground in wet area.

Eucyrtophorus two on more moist ⁱⁿ ground in wet area.

Tarsus conillae sev. juvs. swept from Larrea.

Arth. 26 + 510 = 542.

Other ins. 6 + 17 = 23.

1961. 15 Antelope Pass, Peloncillo Mts., Hidalgo Co., New Mexico Elev. 4400-4600 ft. VIII. 11. 1961 (R-E).

Hill slope below with scattered Larrea, low composites, higher slope ^(stony) with the same composite, also ocotillo, several types of cactus, agave and several junipers.

Stagnomantis juv. swept from Larrea.

Pseudoscorpion a number of males on the low composite of the upper slopes.

✓ Parapronotus numerous on the low composite on the ^{lower} slopes.

Syrphid in same on upper slopes.

Amphitornus Adult - juv. on bare surface.

Trin. pallidip. several, several.

Helicoverpa one on stony ground surface.

Tarsus conillae 1 juv. swept from Larrea.

Arth. 29 + 542 = 571.

Other ins. 10 + 23 = 33.

1961.16 Animas, Hidalgo Co., N.M. Elev. 4405 ft / 6.³
VIII.11.1961.

Rabbit weed, tremble weed and other low scrub, with
some bare ground

Cruzera carinata ♂ + ♀

Trim. pallidipennis 1

Length. ~~4~~ + 571 = 575

Wing in 33 + 0 = 33.

1961.17 5ms. NE of Douglas, Cochise Co., Arizona.

Along U.S. 80. VIII.12.1961. (R. & E.)

Roadside ditch with very tall grasses and tremble weed
thinning out on margin, some areas of bare red silt.

Syrphula. Local. ♂♂ more numerous than females.
Three males seen in a single bush, within a few inches of
one another.

Mermiria adults ♂♂ only, sub-juv. in preced. instar.

Metobryna 1 on bare ground.

Trim. pallidipennis common on bare ground.

Cruzera carinata 3 on bare gr.

Melanophus laticrus type. Few adults.

Swarms of immature melanoplids of a number of species.

Proctotrites ? Juv. Taken, fair number.

Taeniopoda Juv. On roadside in grass.

Heteroptera Juv. swept out of grass.

Length. 41 + 575 = 616.

Wing in 4 + 33 = 37.

1961.19 Same loc. of 1961.5. VIII.12.1961 (Reg.)

Tumble weed and tall grass, short grass, Solanum

coyote melon patches, Yucca.

Paratrillius ssp. script.

Syrphula 1 ♂ in grass.

Mermiria general, but mainly in grass.

Amphotonus in grass.

Agriostictus script.

Conura carinata several in bare area.

Trin. pallidipennis one on bare gr.

Leptus one female on ground.

Tropidolophus small series of adults, mostly ♂
but one ♀ on Solanum weed. local.

Melanoplus discoloris frequent, general even in
Yucca.

Melanoplus laticornis type. several.

Phaenocarpa? several.

Several of immatures melanoplids.

Conalcaea humpheysi A number in Yucca, and
weeds, in other situations, probably accidental.

Uth. 68 + 702 = 770,

Uth. ins. 2 + 43 = 45.

1961. 20 San Simon Valley, 7.2 ms. N. (on U.S.
So) of the Portal turn-off, Hidalgo Co., N.M.
Elev. 4200 feet. VIII. 13, 1961. (R. & E.)

Roadside with drain still muddy from last night's
rain. Rabbit weed, black brush, larrea, Robertlinia and
bunch grass, also a few Yucca.

Stagnomantis juv. swept from larrea
Rhabdoceratites juv. swept from larrea.

Mermiria In bunch grass.

✓ Paropromela Merm. in bunch grass.

Alpina? juv. swept

Siphula In grass.

Psolocosa On ground.

Striatum Two seen, one taken, in black brush.

Trim. pallid. on fr.

Melanophus aridus fr. Simul.

Orth 27 + 770 = 797.

lith vis. 6 + 45 = 51.

1961.21 Road pass of US 80 through northern
Peloncillo Mts., 13 ms. N. of Animas Turn-off,
Nidalgo Co., N.M. Elev. 4700-4800 feet. VIII. 13. 1961.
[R. & E.]

Pass through ragged low rocky ridges, coniferous, more
evident elements acacia, mesquite, rabbit weed, cholla and
sagebrush, harrisa, yucca, bunchgrass, sotol and a
little scotillo.

Ypsinops on fr.

Blapheromera juv. swept from harrisa.

Parabacillus several, one in acacia.

Syrphid several, one in acacia.

Mermis in grass.

✓ Paropromela in grass

Psolocera on ground surface.

Trin. pallidip. in wash

1. Stenoma type. ~~Some~~ General on rocky surfaces.

Rebulla num. but local. Largely on coarse gravel.

Helicula the on white rock surface.

Phrynotettix the on rock wash surface.

Ceratocera juv. the in sotol.

Neoprotettix the in rabbit weed, then elsewhere.

Melomachus aridus type. In acacia.

Orth. 40 + 797 = 837.

Cole. ins. 1 + 51 = 52.

1961.22 Southwestern Research Station, Can Creek
Canyon, Cochise Co., Ariz. Elev. 5400 ft VIII.14.1961,
Along road south from station - area examined^(R.)
in 1956 or 1957. Juniper & oak stands on stony
ground, some areas of open with sparse short grass.
Very little.

Aspidion 1 juv. on lower area.

Mesobryonia 3 adult ♂♂ and several juvs.
on stony areas in sun.

Trimerotropis illiciens? An adult pair,
taken in different spots. Stony areas.

Neleus benyi, 1 ad. ♂ + 2 juvs. Stony areas.

No trace of Conalcaea previously taken in
the same immediate area.

Orth. 11 + 837 = 848

Other ins. 0 + 52 = 52

1961.23 6-8 ms NE of Douglas, Cochise Co., Arizona

Crossing road - Tachinopoda 3 ad. + 1 juv

VIII.14.1961

Orth. 4 + 848 = 852

Other ins. 0 + 52 = 52

1961.24 Sloan Ranch, mouth of Shoshone Canyon,
Pelonville Mts., ^{Cochise Co., Arizona} ~~St. Johns Co., N.M.~~ Elev. approx.
4675
4700 feet. VIII. 14, 1961 (Eades).

Rocky wash and narrow rocky flood plain. Sycamore
trees and a few other species of trees along wash. Ground
reasonably well covered with grass and weeds.

Syrphula in grass & weeds.

Agonistettix ~~not~~ 2 juvs. same habitat.

Proctoson on ground.

Autocara? 1 juv. on ground.

Cnizya cainata num. on ground between grass tufts.

Helicostus benjamini on stony soil, but not in wash.

Cnabacra machucana 1 ♀ in weeds along side wash

" lunifrons 2 ♂ & ♀ (taken separately) in tall
grass & weeds under trees

Metamorphus labinus type. One in grass & weeds.

" aridus type Two " " "

Orth., 38 + 852 = 890.

Other ins., 0 + 52 = 52

Piloncillo Mts.
1961.25 Lower Shiliton Canyon, at state line,
Ochilco Co., Ariz. - Hidalgo Co., N.M. Elev. 4800
ft. VIII.14, 1961. (Eader)

Conditions essentially as at 1961.24 but rats
more numerous than *Sycanones*.

✓ *Paropomata* two in grass.

Aulocara ? juv.

Psolocera on ground.

Helicostus on gr. with rocks.

Melanoplus ardens type sw. in tall grass
+ meads.

Clrk, 10. + 890 = 900.

Other ins. 0 + 52 = 52.
